

Southern California Edison

2004-05 Energy Efficiency Program Plan

Confirmation Number:

Program Title: *Statewide Education and Training*

Proposed by:
Southern California Edison

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List of all other public goods charge programs proposed:

1. Statewide Residential Appliance Recycling
2. Statewide Single Family Energy Efficiency Rebates
3. Statewide Multifamily Energy Efficiency Rebates
4. Statewide Home Energy Efficiency Surveys
5. Statewide CA Energy Star New Homes – Single Family, Multifamily programs
6. Statewide Standard Performance Contract
7. Statewide Express Efficiency
8. Statewide Nonresidential Energy Audits
9. Statewide Building Operator Certification
10. Statewide Emerging Technologies
11. Statewide Savings By Design
- 12. Statewide Education and Training**
13. Statewide Codes and Standards Advocacy
14. Local Small Nonresidential Hard to Reach
15. Local Pump Test and Hydraulic Services
16. Local Government Initiatives
17. Local Community Partnership – 12 Cities
18. Local Community Partnership - Ventura County
19. Local Community Partnership - South Bay Cities Council of Governments
20. Local Los Angeles County program
21. Local UC/CSU program
22. Local Bakersfield/Kern County program
23. Local City of Pomona program

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Statewide Education and Training Program

I. Program Overview

A. Program Concept

The Statewide Energy Efficiency Education and Training Program is offered in the service territories of Pacific Gas & Electric (PG&E), Southern California Edison (SCE), San Diego Gas and Electric (SDG&E), and Southern California Gas Company (SoCalGas). Overall, the program is an information program that promotes energy efficiency to a variety of customers segments through energy centers (physical and virtual) and other informational programs. The objective is 1) to disseminate information about energy efficient technology and practices to utility customers for the purpose of assisting them to reduce energy usage, lower their bills, reduce operation and maintenance costs, and improve their productivity; and, 2) to provide services to a variety of market actors, architects, engineers, distributors, and contractors who use information and tools to design more efficient buildings or processes and to conduct energy efficiency retrofits and renovations.

An additional SCE component of the program is to evaluate the performance of energy efficient technologies applicable to end-uses lacking energy efficiency standards, and to leverage those technology evaluation results to develop new energy efficiency incentive programs and enhance the existing programs. This high fidelity engineering testing is an integral function of the SCE energy centers. Results have led to new Energy Efficiency Programs, partnerships with the California Energy Commission, manufacturers, and customers alike.

SCE accomplishes this goal, as it has in the past, through the services and information offered by three distinct components within this program – the Energy Centers, Information Services, and Product Labeling.

B. Program Rationale

The rationale for providing the Statewide Education and Training Program plays is extensive. It is a significant role in overcoming market barriers related to insufficient information relied upon and product knowledge-trusted resource by utility customers looking for unbiased and accurate information regarding existing and emerging energy efficient products and efficiency technologies. The program and their application. It also promotes energy efficient technologies and equipment, and PGC program information through:

- Seminars and workshops
- Displays and exhibits
- Program rollouts
- Trade shows

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- ~~Community events~~
- ~~Retailer sessions~~
- ~~Vendor presentations~~
- ~~Consultations~~
- ~~Equipment demonstrations~~
- ~~Energy center facility tours~~
- ~~Field service visits~~
- ~~Industry trade group presentations~~
- ~~Publications~~
- ~~Product Labeling~~
- ~~Web sites~~
- ~~Ads~~

~~The SCE Education and Training Program was funded in 2002 and 2003. Interest in the energy center and Outreach activities continues to increase, indicating that demand for other EE programs, enhancing the outreach of these services will continue.~~

Activity	2001	2002	Projected 2003
Seminars/Workshops	153	171	174
Total EE Events*	N/A	215	225
Technical Consultations/ Demonstrations	2394	2493	2600
Outreach Events	60	144	150

~~* "Total EE Events" includes seminars/workshops and all consultations, demonstrations, and facility presentations that are two hours or longer. Tracking "Total EE Events" as a filed goal began in 2002 programs (See Section 2.A.).~~

C. Program Objectives

~~Proposed Education and Training activities will not change substantively in 2004-2005 from the activities in 2002-2003. Continued emphasis will be put toward creating programs that address equity objectives by targeting the hard to reach market as defined in the Energy Efficiency Policy Manual. Promotion of activities will be enhanced to more specifically include this market, although not to the exclusion of the larger or urban customers, whose use of energy, and therefore potential for increased efficiencies, is substantial.~~

Energy Centers

The energy centers are at the center of this program. Since 1990, SCE's energy centers in Irwindale and Tulare have delivered quality energy efficiency seminars, workshops, and technology demonstrations to tens of thousands of customers

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(ratepayers), government personnel, international guests, and utilities from other states. The educational forums presented have had a dramatic impact in disseminating energy efficiency information and influencing customers to implement energy savings technologies as well as effectively moving them to participate in other energy efficiency programs.

KEMA-XENERGY recently completed the “Evaluation of the 2002 Statewide Education, Training and Services Program,” for SCE, PG&E, SDG&E, and SoCalGas. It looked at the EE seminars offered by all the utilities and tested the linkages between program seminars attendance and the reduction of relevant market barriers, presented evidence of reduced market barriers as a result of attending the program’s seminars, and determined effectiveness in increasing the adoption of energy-efficiency measures and inducing behavioral changes. It concluded that the seminars held at the energy centers do indeed have a positive impact on the customers who attend.

- “...the program’s seminars are effective in reducing the relevant market barriers, including information costs, performance uncertainty, and information asymmetry...the program reduced the relevant market barriers for the majority of its attendees, resulting in changes in behavior for well over half of participants. These changes included purchasing higher efficiency equipment and improving operation and maintenance of equipment. Likewise, most participants reported that future purchase decisions would be influenced by the program.” (Section 1, Pages 1-4, 1-5)
- Market barriers addressed (Section 3, Table 3-6, Page 3-23):

<u>Barrier</u>	<u>Barrier Description</u>	<u>Program Intervention</u>
<u>Information Costs</u>	<u>There are costs associated with identifying energy-efficiency products and accessing technical information</u>	<u>The program provided:</u> <ul style="list-style-type: none"> • <u>Credible advocacy and information range of energy-efficiency products</u> • <u>A convenient, centralized location with a flexible schedule of seminars</u>
<u>Performance Uncertainty</u>	<u>Difficulties arise in evaluating the claims about the benefits of energy-efficiency products</u>	<u>The program provided:</u> <ul style="list-style-type: none"> • <u>Objective information, on-site demonstrations, and technical assistance</u>
<u>Information Asymmetry</u>	<u>End-users face difficulties in evaluating the claims by salespeople for energy-efficiency products because the sellers may have more information and/or incentives to mislead customers</u>	<u>The program provides:</u> <ul style="list-style-type: none"> • <u>Unbiased, cutting-edge information on energy efficiency technologies</u>
<u>Bounded Rationality</u>	<u>Decisions are not always entirely rational, and individuals tend to remain with the status quo even though their stated goals would indicate otherwise</u>	<u>The program provides:</u> <ul style="list-style-type: none"> • <u>Individualized information provided by knowledgeable instructors in a supportive environment to give customers the opportunity to depart from the status quo</u>

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		<ul style="list-style-type: none"> • <u>Objective information and on technical support</u>
	<p>In 2004, the program will continue to offer seminars/workshops as well as other field services focused on promoting energy efficiency to customers. From January through July 2003, 158 such events were completed by SCE energy centers. Of these, 120 were seminars/workshops, and 38 were other activities of 2 hours or more. It is projected that 173 events will be held by year end. SCE proposes the following target for 2004:</p> <ul style="list-style-type: none"> • <u>“Almost all participants were very or extremely satisfied with the seminars they attended and found them to be very or extremely useful.” (Section 1, Page 1.6) “...all eight aspects of the seminars were rated a 4 or 5 by upwards of 75 percent of attendees.” (Section 4, Page 4-3)</u> <ul style="list-style-type: none"> ▪ <u>“...the seminars resulted in changes in awareness, attitudes, and behavior for three-quarters of end-use customers who attended a seminar.” (Section 4, Page 4-6)</u> ▪ <u>“...most seminar participants were able to overcome a number of significant barriers as a result of their participation in the program.” (Section 4, Page 4-6)</u> ▪ <u>“...almost all attendees retained the information and more than three-quarters have shared the information with others within or outside of their respective companies.” (Section 4, Page 4-11)</u> <p>175The study also addresses the value of the exhibits and displays at the Energy Centers.</p> <p>⊕▪ <u>“The four physical energy efficiency centers offer a wide variety of exhibits and displays that range from showcasing equipment to demonstrating technologies in specific applications. Their presence at the centers reinforces information provided by seminars/ and workshops- and provides information in areas that may span beyond what is contained in a specific class that a customer attends. They create an atmosphere of specialized knowledge in energy issues, which lends credibility to the available information.” (Section 3, Page 3-20)</u></p> <p>Outreach to the hard to reach communities includes distribution of energy savings information at community events and targeting community based organizations to enhance the distribution and dissemination of information efforts to their customer base.</p> <p><u>In summary, the seminars are shown to not only reduce market barriers, but also to change the attitudes and behaviors of those who attend. The centers themselves contribute to this success through the atmosphere created, the interactive aspect of the exhibits and displays, and the technical expertise provided by their staff.</u></p> <p>From January through July 2003, SCE energy centers held 52 events targeting the hard to reach market. Of these, 51 were seminars/workshops, and 1 was a</p>	

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presentation of 2 hours or more. During the 2004 program year, SCE proposes the following HTR target:

- ~~75 seminars/workshops targeted to the hard to reach market.~~

Further substantiating the study findings are the responses by SCE customers to evaluation surveys.

- In 2003, 97% of the customers who were surveyed rated the seminar they attended as above average or excellent.

The SCE program can equitably distribute information to all customer classes via its various and innovative program elements either on-site at the Energy Centers or at outlying locations. These elements include:

- Seminars and workshops: the classroom-style presentation of information
- Displays and exhibits: information presented through graphics and text
- Program rollouts: events designed to introduce energy efficiency programs to customers
- Trade shows: participation in industry shows attended by SCE customers
- Community events: participation in events sponsored by community groups and attended by local customers
- Consultations: one-on-one or small group discussions between customers and a technical specialist about energy efficient technology and its application(s)
- Equipment demonstrations: visual exposure to how specific energy efficient equipment operates
- Technology and equipment testing and evaluation.
- Energy center facility tours: an overview of technologies and applications using the equipment, displays, and exhibits housed at the energy centers
- Industry trade group presentations: presentations made to trade organizations on topics pertaining to their industry
- Web sites incorporated into www.sce.com.

D. Market Segments

~~The educational and information efforts of SCE CTAC energy center also has three distinct testing centers. These test centers offer unique services by evaluating the SCE Education and Training Program cover a broad spectrum benefits of energy efficient refrigeration, HVAC, and lighting technologies. Results are integrated into customer training events, incentive programs, energy analysis tools and new codes and standards. Some examples of market actors including consumers, midstream actors and upstream market actors detailed below. The motivations to make use such information integration include:~~

- Energy efficiency application research which enhance the CEC's Codes and Standards activities.

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—Test facilities which provide customers with proof of the program encompass reducing operational costs as well as increasing productivity and profitability.

- New Construction Market
 - Architects concept information. Through these services, test facilities investigate the benefits and Designers
 - Contractors
- Residential Developers feasibility of new and Builder emerging energy efficient technologies in support of customers' challenges. These activities play an important role in accelerating market penetration of energy efficient technologies.
 - Manufacturers
 - Engineers
- Retrofit Market (Facility) Publishing the energy efficiency test results in trade journals, conference proceedings and Plant Managers engineering handbooks facilitates access of energy efficiency intelligence to all customer sectors.
 - Residential Customers
 - Commercial Businesses
 - Industrial Businesses
 - Institutions

Government (

Partnerships

SCE partners with a number of entities to enhance the program. In the past SCE has created successful partnerships with:

- Environmental Protection Agency
- Department Of Energy
- California Energy Commission
 - Federal/State/Local
 - Agricultural
- Agricultural/Food Processing Specialists
- Refrigeration Specialists
- Maintenance and Repair Personnel
- Energy/Environmental Organizations
- Energy Management Specialists Program
- Professional and Trade Associations
- Technical and National Resources Defense Council
- National Labs
- American Society of Heating, Refrigeration and Air-Conditioning Engineers, Inc. (ASHRAE)
- American Institute of Architects
- American Society of Mechanical Engineers
- Illumination Engineering Society of North America
- South Coast Air Quality Management District
- Food Marketing Professionals Institute (FMI)

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- Technical Universities
- State and Consumer Services Agency
- Elementary schools
- Community colleges
- SCE Engineering – identifies and evaluates new technologies for potential use in Energy Center exhibits and Trade School seminars.
- The CTAC/AgTAC energy centers have established a technology review process for the purpose of integrating and leveraging the service offerings from the Energy Centers, Emerging Technology, and Energy Efficiency Programs
- Business Leaders
- Finance Managers

Of this targeted audience, the hard to reach components are the small commercial and industrial customers in the < 20 KW range, and rural agricultural, as well as other rural SCE- to provide our customers-

- The Information Services element addresses agricultural, commercial with timely information, technology solutions and industrial customers of all sizes. The Product Labeling element is targeted to manufacturers, distributors, retailers incentive programs.
- Agricultural Advisory Board - Edison and contractors several agribusiness entities will be meeting periodically in 2004 at AgTAC and possibly beyond as an agricultural advisory board to discuss and resolve various agricultural issues facing the industry today, such as energy use, energy efficiency, environmental solutions, rates, programs, etc. ,to improve cost competitiveness of our agribusiness customers.
- Other Utilities

It is SCE's full intention to continue currently established relationships and to foster additional ones when opportunities present themselves.

The SCE Education and Training Program was funded in 2002 and 2003. Interest in the energy center and Outreach activities continues to increase indicating that demand for these services will continue.

<u>Activity</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>
<u>Seminars/Workshops</u>	<u>153</u>	<u>171</u>	<u>183</u>
<u>Total EE Events*</u>	<u>N/A</u>	<u>215</u>	<u>231</u>
<u>Technical Consultations/ Demonstrations</u>	<u>2394</u>	<u>2493</u>	<u>2584</u>
<u>Outreach Events</u>	<u>60</u>	<u>144</u>	<u>177</u>
<u>Information Services Direct Customer</u>	<u>N/A⁺</u>	<u>N/A⁺</u>	<u>17,350</u>

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<u>Contacts</u>			
<p>* <u>“Total EE Events” includes seminars/workshops and all consultations, demonstrations, and facility presentations that are two hours or longer. Tracking “Total EE Events” as a filed goal began in 2002.</u></p> <p>† <u>While SCE has been providing energy efficiency information to customers for over 20 years, information program for all nonresidential customers was not formally tracked in 2001 and 2002.</u></p>			

- In 2003, 5169 customers attended EE seminars at the energy centers; and 1690 benefited from consultations, demonstrations, and facility tours (under 2 hours).
- In addition over 250,000 were reached through Outreach trade shows.
- In 2003, results obtained from the tests performed at the energy center were presented in:
 - ASHRAE Winter Conference
 - Effects of improper product loading on energy efficiency of refrigerated display cases
 - ASHRAE Summer Conference
 - Energy efficiency enhancements in supermarket display cases
 - FMI Annual Conference
 - Investigation of energy efficient technologies for supermarket display cases
 - International Congress of Refrigeration
 - Investigation of Energy Efficient Supermarket Display Cases
 - FMI 24th Annual Energy and Technical Conference
 - Design and fabrication of the most energy efficient display case
 - ASME Monthly Technical Meeting
 - Energy efficient refrigeration equipment
 - ASHRAE Tri-county chapter
 - Gas Company Energy Efficiency Workshop
 - Edison Electric Institute National Accounts Meeting

Innovative Approach

Bringing customers into the know does not happen by itself. It is through the energy centers staff and their thorough knowledge of SCE’s customers that seminars are presented on cutting-edge technologies, and innovative approaches are developed and used in delivering the information to the various customer groups, industries, and market segments who would receive the most benefit. For example, a number of unique offerings were developed in 2003:

- **Lightfair 2003** is the world’s largest architectural and commercial lighting trade show and conference. Held in New York City. , most California designers, contractors, specifiers, and utility customers were not able to attend. CTAC developed a seminar/workshop for West coast lighting professionals focusing on new energy efficient lighting products that were introduced at Lightfair, including new lamps, ballasts, lighting controls, and luminaries. Several of the new products

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have been integrated into CTAC's Lighting Lab for use in existing classes and demonstrations. A second class was offered due to high demand. This seminar was also offered to San Diego Gas & Electric customers.

- New energy efficiency standards for non-residential buildings in California have been adopted and will be implemented on January 1, 2005. The Energy Centers, in conjunction with product and program groups, presented a new seminar, **Preview of 2005 Title 24 Standards**, to educate customers, design professionals, and building professionals on the changes, and how they will affect new construction projects. Practical information is provided on how to comply with the new standards for energy performance in building envelope, lighting, and mechanical systems.
- **Rebuild America Series - Commissioning & Financing**
Southern California Edison CTAC partnered with the U.S. Dept. of Energy to present Energy Efficient Technology Seminars through the "Rebuild America" Program. The seminars feature technical and business experts highlighting the latest proven technologies for reducing building energy costs. Rebuild America is a network of more than 500 partnerships dedicated to creating self-sustaining community initiatives to save energy, save money, improve building performance, reduce air pollution and enhance the quality of life through advanced energy-efficiency technologies and practices.
- **Laboratories for the 21st Century**
The Energy Centers partnered with the U.S. Environmental Protection Agency and U.S. Department of Energy to present this course introducing sustainable design approaches for both new and existing laboratories. Topics include: architecture and engineering of high performance labs, energy efficient design process, air supply and distribution systems, direct digital controls, commissioning, case studies and tools and retrofit design strategies.
- **Heating, Ventilation and Air Conditioning Seminars:**
Technology in the area of Heating, Ventilation and Air Conditioning (HVAC) is constantly improving. As a result the energy centers have revised existing HVAC seminars to include descriptions and demonstrations of improved Package units, Air systems and Evaporative Coolers technology in the following seminars: Chilled Water Systems, Premium Motors & ASD's, Package Unit HVAC, Air Handling Systems, Cooling Towers.
- **Festival of Lights Event**
In December of each year, a 12-day holiday lighting event is held at AgTAC. Tulare County Office of Education, Tulare School Districts, clubs and local business organizations participate in creating and decorating 40 displays. Drive-thru public viewing is available 3-4 hours nightly. Attendance averages over 10,000 customers per year. Energy tip cards are distributed to attendees and energy efficiency message boards are placed next to various lighted displays for viewing.

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It is important to find cost-effective ways to keep the displays and showcases at the energy centers fresh and up to date. A number of innovative upgrades were made to further enhance the customers' learning experience, including:

- **Lighting Lab Upgrades**

CTAC's Lighting Lab has been extensively modernized and been equipped with new lamp, ballast, and luminaire displays. These technologies are interactive and enhance the delivery of classes and seminars, including: Lighting for Architecture and Interiors, New Lighting Technologies, Lighting Retrofit Strategies, Basic Commercial/Industrial Lighting, Outdoor Lighting, and Merchandise Lighting. New displays include: H.I.D. Lamps and ballasts, new fluorescent lamp and ballast technologies, LED applications, low voltage incandescent, and digital controls.

- **Daylight Center**

CTAC's newest addition is the 'Daylight Center'. It contains 1,000 square feet of space that incorporates several energy efficient measures, such as:

Daylighting: An exterior 'light shelf' reflects sunlight into the building, illuminating the ceiling and increasing room brightness. The high efficiency direct/indirect lighting systems are photosensor controlled and will dim as daylight levels increase, resulting in lighting energy savings.

Displacement Ventilation: A technique that delivers cooled or heated air at floor level. This occurs at a lower velocity and at a slightly higher temperature to promote improved comfort, indoor air quality and energy savings.

High performance glass: Upper clerestory windows are dual-pane, low-E, with 68% light transmittance for the daylighting application. The lower view windows are also dual-pane, low-E, but with a darker tint (40% light transmittance) to reduce glare, maintain visual comfort and thermal efficiency.

Cool Roof: A single-ply membrane, thermoplastic roof material on the building is a reflective white color designed to reduce heat gain in the building during the summer months.

- **Professional Wet Cleaning Demonstration Center**

CTAC's new 850-square-foot "Wet Cleaning" Demonstration Center, which also features day-lighting and energy-efficient high-bay lighting techniques.

Here you can view demonstrations of wet cleaning, the water-based garment-cleaning technology that is an energy-efficient and environmentally compliant alternative to the chemical-based dry cleaning equipment currently in use. This center was added to assist SCE's customers in understanding and complying with the South Coast Air Quality Management District's (AQMD) requirement that all dry cleaners using perchloroethylene (perc) to phase out the chemical by the year 2020, since perc is known to cause adverse health effects and is a toxic air and groundwater contaminate. SCE realized that most dry cleaning facilities are small commercial, "mom and pop" operations, are minority owned, and in most cases their primary language is not English. SCE seized this opportunity to build this

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new facility to provide hands on training and to educate its customs to the benefits of wet cleaning. A major benefit in addition to the environmental issues is that wet cleaning can produce a 20% to 48% decrease in electricity use, resulting in up to \$850 savings on energy bills per year.

Cool Roof Seminar/Display

SCE and the Union Roofing Contractors Association of Southern California partnered to educate commercial and industrial building professionals on how to save energy costs with cool roofs. Customers can visit our energy center to view a cool roof display or attend a seminar on cool roof technology. There are approximately 6-8 billion square feet of roofs in California. By educating commercial or industrial building owner/operator they can reduce electricity usage and save money. This seminar focuses on the benefits, applications and potential cost savings of Cool Roofs. Topics include: installation costs vs. potential savings; recommended materials; and considerations for restoration or replacement. Case studies are presented to attendees.

- **AgTAC Demonstrations Grounds**

AgTAC also offers a 4.5 acre outdoor demonstration grounds that is used to demonstrate and display working pumps, irrigation technology and energy efficiency systems/devices/concepts on row crops, trees, vines, and landscaping. The acreage is divided into 10 farmable plots to showcase these features. Annually, new features, technology advances related to energy efficiency are introduced into the demonstration grounds. Through this evolving project, over 55 (mostly private) organizations, vendors and manufacturers have dedicated products and services towards these demonstration grounds. Their efforts, knowledge, ideas, resources, and services continue to attract and connect customers, advanced technologies and efficiencies to agriculture, industry, commerce, to benefit the all customers in California.

- **Leveraging Meeting Facilities**

Over the years, the Energy Centers have provided meeting facilitation to businesses, communities and customers for non-energy efficiency activities. This provides the centers the opportunity to connect these customers to energy efficiency exhibits, displays and information.

II. — Program Process

A. Program Implementation

~~Statewide collaboration will continue in 2004-05 through sharing course materials and classes, instructors, and advertising. The sharing of these resources insures a more consistent energy efficiency message within the state. Also, by coordinating the development and sharing of training materials, opportunities to reduce development costs can be realized, depending on the subject and needs of the specific target audience.~~

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Equity

The Energy Centers provide energy efficiency information to customers who might otherwise not be able to access that knowledge.

Each utility tailors its offering to meet the requirements of its target markets. CTAC delivers EE information and based on the resources available. SDG&E, for example, does not have a physical energy center; therefore, they rely on seminars and community events held education at third party sites. The energy centers alternate venues. Twenty-four EE events were held in locations other than CTAC in 2003 to reach customers who are able not likely to provide a mix of products including seminars, displays and exhibits, equipment demonstrations, consultations travel to the energy centers. Also in 2003, in conjunction with the Business Solutions organization, portable information kiosks were developed and installed in several locations including Lake Elsinor, Ridgecrest, and at the Ron Brown Urban Center in Long Beach. These are kept updated with current EE program and technical specialists information.

The SCE Education and Training Program

AgTAC was created specifically to address a community that did not have the opportunity to travel to CTAC for seminars and information. Located in the San Joaquin Valley, it serves not just agricultural customers, but also includes such services as offsite classes and presentations commercial and participation in trade shows industrial customers in the region. It also partners with local schools and other community events.

—Implementation Strategy & Activities

—Energy Centers

The Education colleges, and Training Program has and will continue to assist with the diffusion of energy efficient technologies and practices into the market, covering both the some residential and nonresidential markets. This is done primarily at the CTAC and AGTAC facilities through education in customers, further expanding the form dissemination of seminars, workshops, displays, demonstrations, technical consultations, facility presentations, fact sheets, and brochures. In addition, information is provided by taking specific seminars and presentations to offsite locations.

—Activities will not change substantively in 2004 from 2003. Strategically, emphasis will move even more toward the underserved markets of small to medium commercial and industrial and also those located in rural areas. Promotion of activities will be directed more specifically to these markets, although not to the exclusion of other customers.

Information Services

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The Information Services proposal is for the continuation of the program offered by SCE in 2003. The program met and, in 2004 and 2005, will continue to meet the California Public Utilities Commission's (Commission) goals and objectives for energy efficiency programs for the retrofit and new construction market.

~~Innovative products~~The Information Services program is a comprehensive information program addressing electricity usage, operation and technologies will not succeed if they are not adopted in the market place. There are**core seminars**maintenance of electrical equipment, retrofit of existing equipment, and**workshops**on which the promotion of new high-efficiency hardware. The Information Services program provides general information about no-cost, low-cost behavioral measures ("Practices") and hardware retrofit ("Measures") energy centers have consistently relied to educate its markets and promote the adoption of innovative products. These include Commercial Industrial Lighting, HVAC efficiency options. The information acts as a starting point for Commercial Facilities, Motors/ASDs, Energy Efficient Refrigeration classes offered at the Refrigeration many of the SCE incentive and Thermal Test Center (RTTC) rebate programs, such as Express Efficiency, Standard Performance Contracts (SPC), and others. More**specialized topics**include Compressors/air leak certification, Energy Efficiency Savings By Design (SBD), and for Schools, and the Clean Water Conference, Irrigation Workshops, Industrial Maintenance, Wastewater Treatment, informational programs, such as Nonresidential Energy Audits (NRA) and Ground water Wells & Pumps. In 2004, the energy centers will continue to expand their specialized offerings to meet customer needs. As stated above, they will also enhance their marketing activities to better reach Hard to Reach customers.Energy Center Seminars.

~~—~~Supporting the educational curriculum at the energy centers are**exhibits and displays**that range from showcasing equipment to demonstrating operation of specific applications. Their presence at the centers reinforces information provided by seminars and workshops and provides information in areas that may span beyond what is contained in a specific class that a customer attends. They create an atmosphere of specialized knowledge in energy issues, which lends credibility to the available information.

The Table on page 7, identifies the broad reach Information Services has on SCE customers. And this impact will only increase. Energy efficiency technologies are evolving, but the viable new technologies must be marketed to gain acceptance by energy users. The Information Services program is an important link between new energy efficiency technologies and California energy users. SCE leverages relationships with nonresidential customers to target information to the adopters and decision makers who will utilize the audit, incentive and rebate programs to reduce energy consumption. The program uses a combination of in-person, telephone, e-mail, newsletter, mail, and facsimile communication to reach customers cost-effectively, in the manner(s) for which the customer has expressed a preference.

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~~Display~~As a trusted energy advisor, SCE overcomes market barriers, outlined in the Energy Center sub-section of this section, that inhibit adoption of cost-effective energy efficiency practices and ~~demonstration upgrades planned for 2004 include:~~

- ~~Technology Trailer—AGTAC~~
- ~~Low Pressure Pumping Exhibit—water flow measurement and control instrumentation—AGTAC~~
- ~~Remodel of the Commercial Products Center at CTAC which will include measures by providing unbiased information on current technologies and the viability of new exhibits such options. Many consider it best to regard the entire portfolio of information services, nonresidential energy audits, and rebate and incentive programs as:~~
 - ~~New High Performance Glazing display~~
 - ~~New Energy Management System display~~
 - ~~High Efficiency Package Air Conditioner display~~
 - ~~Displays that will demonstrate low e-roof tiles and paints~~

~~Upgrade the Lighting Products Center at CTAC an integrated set of energy efficiency services, with new exhibits that will include each program building upon the other to serve the diverse needs of the nonresidential population.~~

- ~~High Intensity Discharge and Induction lamps~~

LED

Product Labeling

- ~~The objective of the program is to improve the distribution and Flat panel Lighting applications~~
- ~~New Fluorescent System displays~~
- ~~Other upgrades sale of energy efficient residential products through out CTAC will include~~
 - ~~New motoreducation and drive display~~
 - ~~Variable speed drive compressed air system~~
 - ~~New electric motoretraining of sales personnel and drive demonstration~~

~~AGTAC the labeling of products in-store. This in-store labeling brings the energy efficient product to the customers' attention. The program also offers a 4.5-acre outdoor demonstration grounds that is used to demonstrate disseminates rebate information and display working pumps, irrigation technology marketing materials to manufacturers, distributors, retailers and energy efficiency systems/devices/concepts on row crops, trees, vines, and landscaping. The acreage is divided into 13 farmable plots to showcase these features. Annually, new features, technology advances related to energy efficiency are introduced into the demonstration grounds. Through this evolving project, over 55 (mostly private) organizations, vendors and manufacturers have dedicated products and services towards these demonstration grounds. Their efforts, knowledge, ideas, resources, and services continue to connect customers, advanced technologies and~~

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efficiencies to agriculture, industry, commerce, and for the public good contractors to increase consumer awareness of energy efficient home technologies.

The energy centers' staff will continue to be available to provide **consultation to customers** regarding their energy needs, insuring that they are advised in the most energy efficient methods to meet those needs. This is done in person, by phone, and by e-mail, both direct and web site generated.

The **SCE Energy Centers web site** will be updated as needed to provide customers with information about CTAC and AGTAC and its offerings as well as providing a link to information on other EE products and services. It will also link to technical information sites as appropriate and in compliance with all affiliate and energy vendor guidelines.

Support of Other Ongoing Energy Efficiency Programs

All components of SCE's Education and Training program work together to promote the information about energy efficient technologies and equipment, the program promotes other PGC programs, enhancing the outreach of these programs.

- Displays at the Energy Centers promote the available EE programs.
- Program materials are available at the centers.
- When appropriate, presentations describing the relevant EE programs are included in seminars.
- Distribution of information about various energy efficiency programs through use of personal contacts, internet, emails, direct mailings, and newsletters.

C. Program Objectives

Proposed Education and Training activities in 2004-2005 will continue to build on the success achieved in 2002-2003. The primary objective has been and will continue to be to reduce barriers to customers' participation in the energy efficient marketplace by providing accurate and unbiased energy efficiency information to SCE customers. This information will assist customers with reducing energy use and/or increasing productivity, thereby lowering their energy costs. As in the past, the program will address equity objectives by targeting the hard-to-reach market as defined in the Energy Efficiency Policy Manual. Promotion of activities will be enhanced to more specifically include this market, although not to the exclusion of the larger or urban customers, whose use of energy, and therefore potential for increased efficiencies, is substantial. All Education and Training Program activities are offered at no charge to SCE customers.

Through the venues described, the energy centers will continue support of other EE products and programs.

Energy Centers

In 2004, the program will continue to offer seminars/workshops as well as other field services focused on promoting energy efficiency to customers. In 2003, 231 such events (as defined above) were completed by SCE energy centers. Of these,

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183 were seminars/workshops, and 48 were other activities of 2 hours or more. SCE proposes the following target for 2004:

- ~~• Outreach activity in 2004 will continue to support Major Customer Division personnel in their efforts to communicate and educate SCE's commercial and industrial customers about 185 energy efficiency programs, rebates and incentives, and new technologies. Outreach also supports energy efficiency events, industry conferences, community events, and energy associations with displays, staffing, materials, and hands on exhibits. Exhibits and displays complement the face to face customer interaction that is essential to understanding technologies and getting answers to important questions. seminars/workshops.~~

Outreach to the hard-to-reach communities includes hands-on demonstrations of Energy Star office equipment and other energy efficient technologies, distribution of energy savings information at community events, and targeting community based organizations to enhance the distribution and dissemination of information efforts to their customer base.

In 2003, SCE energy centers held 81 events targeting the hard-to-reach market. Of these, 71 were seminars/workshops, and 10 were presentations of 2 hours or more. During the 2004 program year, SCE proposes the following HTR target:

- 75 seminars/workshops targeted to the hard-to-reach market.

Additionally, application testing will continue to embellish the technical aspects of the energy efficiency incentive programs. Test projects from these facilities have resulted in expansion of the SW Express Efficiency Refrigeration program. Furthermore, results obtained from test projects have led to development of robust energy analysis tools, which have been used by the program staff to forecast the energy and demand impacts of refrigeration measures included in SW Express Efficiency program.

Information Services

In 2004 and 2005, Information Services will continue to provide energy efficiency information and resources to fit the customers need. This will include no-cost and low-cost energy efficiency recommendation and information about programs to assist them with implementing these cost-effective measures. Some of these programs will provide technical information, others will provide financial resources such as incentives or rebates.

Information Services will leverage customer relationships, resources from industry relationships, and strategic alliances to promote energy savings, peak load reduction, and long-term market change. SCE will work to coordinate all

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Education and Training offerings with its statewide IOU counterparts to ensure equity and ease of implementation throughout California.

Product Labeling

In 2004-2005, SCE will continue its successful Product Labeling Program to complement the Statewide Residential Single Family Home Energy Efficiency Rebate (SFEER) Program. This program's efforts were expanded in 2003, and proved to address be very effective in increasing the market barrier of number of energy efficient products sold in the lack of available high efficiency products. The objective of the program marketplace. It is our intention to improve the distribution and sale of energy efficient products through education and training to market actors. SCE works with manufacturers and retailers to improve the distribution, floor stock allocation and sales of qualifying energy efficiency products. The program provides training to retailer sales staff and pool and HVAC contractors build on available rebates offered through SCE's SFEER program. The program also disseminates rebate information and point of sale marketing materials to increase consumer awareness.

During the 2003 program, SCE provided field services for more than 250 pool retailers in our service territory to promote high efficiency pool pumps and motors. This activity involved: 1) installing a color postcard size label was put on every floor display pool pump letting customers know they could save up to \$300 on the purchase of the energy efficient version; 2) placing a special one page rebate application at the cash register with another color advertisement bringing the customer's attention to the offer and 3) training sales personnel on to the requirements for the rebate program.

In addition to supporting pool retailers, SCE provided field support for Home Depot to label ENERGY STAR® qualified programmable thermostats and disseminate rebate information for high efficiency electric water heaters and whole house fans. In all Home Depot stores, we posted store coupons for SCE's point of sale \$20 rebate on ENERGY STAR® qualified programmable thermostats. For Lowe's and Home Depot, SCE provided special one page rebate applications for water heaters and whole house fans and had the applications posted next to the products on display in the home improvement centers.

Thus far in 2003, we have seen noticeable increases these successes in program participation. Pool pump participation is significantly higher than last year's results, and we expect to achieve an increase of approximately 50% in programmable thermostats over last year. We are planning similar activities for 2004, expanding to other measures. Additionally, for 2004-2005, a greater emphasis is planned for the point of sale method of delivery. We expect therefore a greater reliance on the role of product labeling in the retail stores to support this effort.

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Informational Services

SCE's energy education and information services element is designed to produce a permanent change in the way nonresidential customers make decisions about equipment purchases and operational practices.

Over the years, it has been proven customers need reliable information regarding energy efficiency programs and technologies that they can integrate into their facilities and business operation practices. As part of the Education and Training program, SCE delivers this message. Targeting agricultural, commercial and industrial customers of all sizes, SCE representatives, using a variety of outreach medium, ensure awareness of energy center workshops, energy efficiency programs, and the cost benefit of energy efficient technologies. Through this element, new programs and service opportunities are introduced to customers, including other energy efficiency programs such as those offered by the State of California.

B. Marketing Plan

AgTAC/CTAC Marketing Plan Seminars and workshops at AgTAC/CTAC are marketed through a variety A greater emphasis is planned for the point-of-media, including:

Quarterly Mailings—There are four mailers sent out each year. Each mailing goes out sale method of delivery. We expect to approximately 9,000 AGTAC and 39,000 CTAC customers, most located within a 50 mile radius of the energy center. The mailer consistshave a greater reliance on the role of a listingproduct labeling in the retail stores to support this.

D. Market Segments

- The educational and information efforts of the classes offered, datesSCE's Education and Training Program's 3 components (Energy Centers, Information Services, and times for each, and a brief descriptionProduct Labeling) cover a broad spectrum of what is covered. Cost for each quarterly mailer is approximately \$6,000—\$11,000 for AGTAC market actors including consumers, midstream actors and upstream market actors detailed below. The diverse services and CTAC respectively.

Joint Utility Promotion—In cooperationinformation combined with SDG & E, PG & E,SCE's effective relations with its customers motivates its customers to make use of the program to reduce operational costs as well as increasing productivity and The Gas Company, all energy efficiency classes offered at AgTAC/CTAC are promoted in their energy centers. As just one example of the statewide coordination within this program element, all energy efficiency classes offered at AgTAC are advertised in PG&E's semi-annual mailers. This includes the mailer from the Pacific Energy Center going out to 19,000 customers profitability.

- New Construction Market

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- ~~Architects and the one from the Stockton Training Center, which goes out to 14,000 customers. There is no cost to Edison for this joint promotion~~Designers
- Contractors
- Residential Developers and ~~inclusion in their mailers.~~Builders
- ~~EnergyEfficiencyCenter.com—This joint utility website features class listings for each of the State’s energy centers. Class schedules are updated throughout the year~~Manufacturers
- Engineers
- Retrofit Market (Facility and provide customers a one-stop shopping location to find what workshops are available to help solve their energy efficiency needs. Plant Managers)
 - ~~SCE.com—This is Edison’s website which contains all of the various programs and services offered through Edison, including a schedule of classes offered at AgTAC/CTAC.~~Residential Customers will find a comprehensive list of programs
 - Commercial/retail Businesses
 - Industrial Businesses
 - Institutions
 - Government (Federal/State/Local)
 - Agricultural
- Agricultural/Food Processing Specialists
- Refrigeration Specialists
- Maintenance and Repair Personnel
- Energy/Environmental Organizations
- Energy Management Specialists
- ~~Professional and services detailed throughout the website~~Trade Associations
- ~~Technical and are able to make clear choices for those that could potentially meet their energy needs.~~ Marketing Professionals
- ~~Targeted Seminar Mailings—Workshops~~Technical and seminars may require a separate mailer to reach certain customers segments or customer types. These mailings may be sent out to a limited number of customers, segment support groups.Trade School Programs
- Business Leaders
- Finance Managers

II. Program Process

A. Program Implementation

- ~~Statewide collaboration will continue in 2004-2005 through sharing course materials and product related vendors. Costs average approx. \$500 based on volume of mailers sent. Forecasted mailers include:~~

Flyer	Designing Sustainable Libraries	\$361.17
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Flyer	Foodservice Equipment Performances	\$391.76
Flyer	Energy Efficiency in Education Series	\$410.37
Flyer	Energy Efficient Small Business Seminar	\$516.42
Flyer	Cool Roofs Seminar	\$548.19
Flyer	Rebuild America Workshop	\$627.60
Flyer	Cool Roofs Seminar	\$658.78

Product Labeling Marketing Plan—classes, instructors, and advertising. The 2004-05 program will include activities such as installing a color postcard size label sharing of these resources insures a more consistent energy efficiency message within the state. Also, by coordinating the development and sharing of training materials, opportunities to reduce development costs can be realized, depending on floor display pool pumps to let customers know they can save up to \$300 on the purchase of energy efficient pumps. Other the subject and needs of the specific target audience.

The KEMA-XENERGY study noted:

- “The 2002 program continued and expanded past efforts to share course materials and classes, instructors, advertising, and marketing activities include provision and placement of rebate applications at the cash registers, and training sales personnel on the requirements for the rebate program. Similar marketing activities will be utilized for other measures such as energy efficient electric water heaters and whole house fans. mailing lists.” (Section 3, Page 3-22)

Informational Services Marketing Plan—SCE plans to directly contact over 30,000 commercial, industrial, and agricultural customers in 2004-05. During these contacts SCE intends to market: awareness of energy center workshops, energy efficiency programs, cost benefit of energy efficient technologies, availability and eligibility for new programs and service opportunities.

Customer Enrollment

Several methods are used **Energy Centers**

Each utility tailors its offering to enroll in classes at CTAC meet the requirements of its target markets and AGTAC, including:

- Completed Registration Form from quarterly mailer
- FAX Request
- based on the resources available. SDG&E-Mail Request
- Phone Request
- Walk in Registration

Each customer application entails gathering pertinent customer data, for tracking purposes. Completed registration is then followed up with example, does not have a FAX physical energy center; therefore, they rely on seminars and/or phone

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~~confirmation of customer request. Map and directions are sent community events held at third party sites. The energy centers are able to customer to maximize attendance. Customer information is entered and stored in database.~~

~~C. Materials~~

~~N/A~~

~~**Payment** provide a mix of **Incentives** products including seminars, displays and exhibits, equipment demonstrations, consultations with technical specialists. The program does not provide incentive payments.~~

Staff

~~**E.** SCE's Energy Centers shared development and advertising costs, and~~

Subcontractor Responsibilities

~~Program management designs and implements the program instructor expertise with statewide consistency. This includes overseeing all aspects of program planning, promotion, delivery, tracking, and reporting. SCE program and contract personnel manage the CTAC and AgTAC facilities and programming. Various vendors provide support services including equipment, training, and exhibit design and construction. SCE personnel deliver services for other utilities in the Product Labeling and Information Services program elements following seminars during the 2002-2003 Program:~~

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F. ~~Work Plan and Timeline for Program Implementation~~

Event Type <u>Class</u>		Energy Centers Seminars—2004 Estimated Timeline <u>Associated Utility</u>	Hard to Reach <u>Program Year 2002</u>	A
January	Chilled Water Systems	PG&E/SDG&E	X	
	Premium Motors & ASD's	PG&E/SDG&E		
Seminar	Basic Heating, Ventilation & Air Conditioning (HVAC)		CTAC	
	Energy Management Systems	PG&E	X	
		Commercial & Industrial Lighting	X	
Seminar	Package Unit HVAC	PG&E/SDG&E		
Seminar	Air Handling Systems	<i>Energy Efficiency Seminar (Placeholder)</i> PG&E	X	
Seminar	How to Manage Your Business's Energy Costs	<i>HTR Energy Efficiency Workshop (Placeholder)</i> SGD&E	*X	
Seminar	Commercial Refrigeration	Commercial/Industrial Lighting PG&E	*X	
Seminar	Technology Update	Basic HVAC PG&E	*X	
Seminar	Cooling Towers	2005 Title 24 Building Standards PG&E	*X	
Seminar	Compressed Air Systems	Prime Movers PG&E	*X	
Seminar	Industrial Refrigeration	Evaporative Cooler PG&E	*X	
Seminar	Implementing EE Projects	Industrial Maintenance PG&E	*	
	Commercial EE Survey	PG&E		
February	Comparing Motors and Engines as Prime Movers	PG&E		X
Seminar	Design Strategies for High Performance Glass	Commercial & Industrial Lighting Gas Company	X	CTAC
Seminar	Lighting and Daylighting for Architects	Cool Roofs Gas Company	X	CTAC
Seminar	Sustainable Libraries	<i>Energy Efficiency Seminar (Placeholder)</i> Gas Company	X	CTAC
Seminar	Foodservice Supermarket Refrigeration	<i>Foodservice (Placeholder)</i> Gas Company	X	CTAC
Seminar	HiBay Lighting	High Intensity Discharge (HID) Lighting PG&E	X	CTAC
Seminar	Lighting Controls for Energy Management	<i>HTR Energy Efficiency Workshop (Placeholder)</i> ERC/PG&E/SDG&E	*X	CTAC

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	SeminarAdvanced Lighting Technologies	<i>HTR Energy Efficiency Workshop (Placeholder)</i> PG&E/ERC	✕	CTAC
	SeminarFoodservice Lighting	<i>HTR Energy Efficiency Workshop (Placeholder)</i> Gas Company	✕	CTAC
	SeminarLooking at Light Fair 2003	Lighting Fixture Maintenance WorkshopSDG&E		CTAC
Seminar	Package Unit Heating, Ventilation & Air Conditioning (HVAC)			CTAC
Seminar	Premium Efficiency Motors and Adjustable Speed Drives			CTAC
Seminar	Principles of Lighting	✕		AgTAC
Seminar	FSU-CIT Irrigation Workshop	✕		AgTAC
Seminar	CPSLO Irrigation Workshop	✕		AgTAC
Seminar	Compressed Air	✕		AgTAC
Seminar	Technology Update	✕		AgTAC
March				
Seminar	Air Handling Systems			CTAC
Seminar	Chilled Water Systems			CTAC
Seminar	Design Strategies for High Performance Glass			CTAC
Seminar	Designing Sustainable Libraries			CTAC
Seminar	<i>Energy Efficiency Seminar (Placeholder)</i>			CTAC
Seminar	Energy Management Systems (EMS)			CTAC
Seminar	<i>HTR Energy Efficiency Workshop (Placeholder)</i>	✕		CTAC
Seminar	<i>HTR Energy Efficiency Workshop (Placeholder)</i>	✕		CTAC
Seminar	<i>HTR Energy Efficiency Workshop (Placeholder)</i>	✕		CTAC
Seminar	Lighting & Daylighting for Architects & Designers			CTAC
Seminar	Rebuild America Series			CTAC
Seminar	Fertigation	✕		AgTAC
Seminar	SCE Engineer Workshop	✕		AgTAC
Seminar	Motors and ASDs	✕		AgTAC
Seminar	Commercial Refrigeration	✕		AgTAC
Seminar	Advanced Lighting Systems	✕		AgTAC
April				
Seminar	Advanced Lighting Technologies			CTAC
Seminar	Commercial & Industrial Lighting			CTAC
Seminar	Commercial & Industrial Lighting			CTAC
Seminar	Cool Roofs			CTAC
Seminar	Efficient Technologies for Commercial Refrigeration			CTAC
Seminar	<i>Energy Efficiency Seminar (Placeholder)</i>			CTAC
Seminar	<i>HTR Energy Efficiency Workshop (Placeholder)</i>	✕		CTAC
Seminar	<i>HTR Energy Efficiency Workshop (Placeholder)</i>	✕		CTAC
Seminar	<i>HTR Energy Efficiency Workshop (Placeholder)</i>	✕		CTAC

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Seminar	Lighting Controls for Energy Management		CTAC
Seminar	Lighting Fixture Maintenance		CTAC
Seminar	<i>Lighting Workshop (Placeholder)</i>		CTAC
Seminar	Instrumentation and Sensors	x	AgTAC
Seminar	Air Handlers	x	AgTAC
Seminar	Chillers	x	AgTAC
Seminar	Lamp and Ballast Basics	x	AgTAC
May			
Seminar	<i>Foodservice (Placeholder)</i>		CTAC
Seminar	How to Manage Your Business's Energy Costs		CTAC
Seminar	<i>HTR Energy Efficiency Workshop (Placeholder)</i>	x	CTAC
Seminar	<i>HTR Energy Efficiency Workshop (Placeholder)</i>	x	CTAC
Seminar	<i>HTR Energy Efficiency Workshop (Placeholder)</i>	x	CTAC
Seminar	Industrial Maintenance		CTAC
Seminar	Lighting Fixture Maintenance		CTAC
Seminar	Package Unit Heating, Ventilation & Air Conditioning (HVAC)		CTAC
Seminar	Premium Efficiency Motors & Adjustable Speed Drives		CTAC
Seminar	Rebuild America Series		CTAC
Seminar	Technology Update		CTAC
Seminar	Title 24 Non-Residential Standards 2005		CTAC
Seminar	Title 24 Non-Residential Standards 2005		CTAC
Seminar	FSU-CIT	x	AgTAC
Seminar	Packaged HVAC	x	AgTAC
Seminar	Industrial Refrigeration	x	AgTAC
Seminar	SCE Engineer Workshop	x	AgTAC
June			
Seminar	Air Handling Systems		CTAC
Seminar	Chilled Water Systems		CTAC
Seminar	Commercial & Industrial Lighting		CTAC
Seminar	Comparing Motors & Engines as Prime Movers		CTAC
Seminar	Compressed Air System Efficiency		CTAC
Seminar	eQUEST		CTAC
Seminar	<i>HTR Energy Efficiency Workshop (Placeholder)</i>	x	CTAC
Seminar	<i>HTR Energy Efficiency Workshop (Placeholder)</i>	x	CTAC
Seminar	Lighting for Interior Design		CTAC
Seminar	Owning & Operating and Efficient Cooling Tower		CTAC
Seminar	Skylighting for Commercial & Industrial Buildings		CTAC
Seminar	Commercial/Industrial Lighting	x	AgTAC
Seminar	Basic HVAC	x	AgTAC
Seminar	Advanced Lighting	x	AgTAC
July			

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Seminar	Advanced Outdoor Lighting		CTAC
Seminar	Basic Heating, Ventilation & Air Conditioning (HVAC)		CTAC
Seminar	Commercial & Industrial Lighting		CTAC
Seminar	Commercial Energy Surveys		CTAC
Seminar	<i>HTR Energy Efficiency Workshop (Placeholder)</i>	x	CTAC
Seminar	<i>HTR Energy Efficiency Workshop (Placeholder)</i>	x	CTAC
Seminar	<i>HTR Energy Efficiency Workshop (Placeholder)</i>	x	CTAC
Seminar	Lighting Fixture Maintenance Workshop		CTAC
Seminar	Lighting Retrofit & Project Management		CTAC
Seminar	Looking at LightFair 2003		CTAC
Seminar	Looking at LightFair 2003		CTAC
Seminar	Package Unit Heating, Ventilation & Air Conditioning (HVAC)		CTAC
Seminar	Premium Efficiency Motors & Adjustable Speed Drives		CTAC
Seminar	SCE Engineer Workshop	x	AgTAG
August			
Seminar	Air Handling Systems		CTAC
Seminar	Chilled Water Systems		CTAC
Seminar	Cool Roofs		CTAC
Seminar	<i>Energy Efficiency Seminar (Placeholder)</i>		CTAC
Seminar	How to Manage Your Business's Energy Costs		CTAC
Seminar	<i>HTR Energy Efficiency Workshop (Placeholder)</i>	x	CTAC
Seminar	<i>HTR Energy Efficiency Workshop (Placeholder)</i>	x	CTAC
Seminar	Lighting & Daylighting for Architects & Designers		CTAC
Seminar	Lighting Fixture Maintenance Workshop		CTAC
Seminar	Rebuild America Series		CTAC
Seminar	Light Fair 2004	x	AgTAG
Seminar	FSU-CIT	x	AgTAG
September			
Seminar	Basic Heating, Ventilation and Air Conditioning (HVAC)		CTAC
Seminar	Boiler and Steam System Technology Seminar		CTAC
Seminar	Energy Management Systems (EMS)		CTAC
Seminar	eQUEST		CTAC
Seminar	<i>Foodservice (Placeholder)</i>		CTAC
Seminar	<i>HTR Energy Efficiency Workshop (Placeholder)</i>	x	CTAC
Seminar	<i>HTR Energy Efficiency Workshop (Placeholder)</i>	x	CTAC
Seminar	<i>HTR Energy Efficiency Workshop (Placeholder)</i>	x	CTAC
Seminar	Industrial Refrigeration		CTAC
Seminar	Lighting Retrofit Strategies and Project Management Techniques		CTAC
Seminar	Successful Merchandising with Efficient Lighting		CTAC
Seminar	Technology Update		CTAC
Seminar	Title 24 Nonresidential 2005 Standards		CTAC
Seminar	Title 24 Nonresidential 2005 Standards		CTAC

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Seminar	Unitary HVAC System Options		CTAC
Seminar	Groundwater Wells and Pumps	x	AgTAC
Seminar	Compressed Air	x	AgTAC
Seminar	Implementing Energy Efficient Projects	x	AgTAC
Seminar	SCE Engineer Workshop	x	AgTAC
October			CTAC
Seminar	Advanced Lighting Technologies		CTAC
Seminar	Basic Heating, Ventilation and Air Conditioning (HVAC)		CTAC
Seminar	Commercial & Industrial Lighting		CTAC
Seminar	Efficiency Techniques for Industrial Refrigeration		CTAC
Seminar	<i>Energy Efficiency Seminar (Placeholder)</i>		CTAC
Seminar	Energy Efficient Supermarket Refrigeration		CTAC
Seminar	<i>Energy Efficiency Workshop (Placeholder)</i>		CTAC
Seminar	<i>HTR Energy Efficiency Workshop (Placeholder)</i>	x	CTAC
Seminar	<i>HTR Energy Efficiency Workshop (Placeholder)</i>	x	CTAC
Seminar	Lighting for Interior Design		CTAC
Seminar	Managing your Energy Systems		CTAC
Seminar	Technology Update		CTAC
Seminar	Industrial Maintenance	x	AgTAC
Seminar	Prime Movers	x	AgTAC
Seminar	Industrial Refrigeration	x	AgTAC
Seminar	Lighting Controls for Energy Management	x	AgTAC
November			
Seminar	Basic Heating, Ventilation & Air Conditioning (HVAC)		CTAC
Seminar	Compressed Air System Efficiency		CTAC
Seminar	Cooling Tower Efficiency		CTAC
Seminar	Design Strategies for High Performance Glass		CTAC
Seminar	<i>Energy Efficiency Seminar (Placeholder)</i>		CTAC
Seminar	<i>HTR Energy Efficiency Workshop (Placeholder)</i>	x	CTAC
Seminar	<i>HTR Energy Efficiency Workshop (Placeholder)</i>	x	CTAC
Seminar	<i>HTR Energy Efficiency Workshop (Placeholder)</i>	x	CTAC
Seminar	Implementing Energy Efficiency Projects		CTAC
Seminar	Industrial Maintenance		CTAC
Seminar	Lighting Fixture Maintenance Workshop		CTAC
Seminar	Rebuild America Series		CTAC
Seminar	FSU-CIT	x	AgTAC
Seminar	Advanced Lighting Systems	x	AgTAC
Seminar	Commercial Refrigeration	x	AgTAC
Seminar	Technology Update	x	AgTAC
December			
Seminar	<i>Energy Efficiency Seminar (Placeholder)</i>		CTAC

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Seminar	High Intensity Discharge Lighting (HID)		CTAC
Seminar	How To Manage Your Business's Energy Costs		CTAC
Seminar	<i>HTR Energy Efficiency Workshop (Placeholder)</i>	x	CTAC
Seminar	<i>HTR Energy Efficiency Workshop (Placeholder)</i>	x	CTAC
Seminar	Skylighting for Commercial & Industrial Buildings		CTAC
Seminar	Merchandizing With Efficient Lighting	x	AgTAC
Seminar	Motors and ASDs	x	AgTAC
Seminar	Packaged HVAC	x	AgTAC
Total Events =	175		

Event Type	Outreach Supported Events Estimated Timeline
January	
	Asian Business Association
	SBA Loan Fair
	California Electricity Market Update (2)
February	
	California Electricity Market Update (8)
	2003 World Ag EXPO, Tulare
	AAHOA Regional Energy Efficiency Event
	Edison Field Home Show
	South Bay Cities COG General Assembly
	United Fresh Fruit & Vegetable Assn EXPO, Long Beach
March	
	Westside Business EXPO
	High Desert Vendor Show, Victorville Fair Grounds
	Rebuild America Event, CTAC
	ULI Urban Marketplace
	AEE Convention
April	
	Irvine B2B Event
	Annual CALED Conference
	SCE Energy Manger Breakfast & Seminar (4)
	Palm Springs Home Show
	UCRA Cool Roofs Event
	Earth Day & Energy Conservation Fair
	Asian American Hotel Owners Association (AAHOA) Convention
	P.A.S.S. EXPO, Palm Springs
	Commercial & Industrial Lighting Workshop

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	Annual Environmental EXPO, CSU San Bernardino
May	
	B2B Industry Show
	California Electricity market Update (11)
	Anaheim Home Show
	Rebuild America Event
	Chinese Energy Star Press Conference & EXPO
	Federal Energy Management Program Workshop
	US Dept of Energy, Irvine
	Corporate Investment Strategic Alliance Conference
	California Counties Association
	Large Business EXPO, Arcadia
June	
	California Electricity Market Update (2)
	Basic HVAC Seminar
	Non-Profit Community Energy Workshop
	Annual Express Efficiency Hispanic Press Conference
	Annual African-American Summit, Irvine
	Minority Small Business Tech Summit
	Let Our Managers Work For You
July	
	Korean Express Efficiency Press Conference & EXPO
	National Urban League Conference
	Non-profit Energy Forum
	Independent Cities Association, Palm Springs
	Let Our Managers Work For You (3)
	Non-Profit Community Energy Workshop (2)
August	
	Western Foodservice & Hospitality EXPO
	How to Manage Your Business' Energy Costs (2)
	Maintenance Superintendent Association Annual Conference, Palm Springs
	Chinese Small Biz Energy Efficiency EXPO
September	
	Annual League of California Cities
	West Coast Energy Management Congress w/AEE
October	
	BOMA

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	Non-profit Energy Forum
	Cook Chill Rethem Serve (CCRM)
	AQMD Small Business Event
	Energy Awareness Week, Marine Corps Base 29 Palms
	National Minority Supplier Development Council
November	
	Little Saigon EXPO
	California Association of Nonprofits
	Edison Field Home Show
December	
	California Farm Bureau Convention
Total Events =	85

The Energy Centers also hosted and partnered with the California Energy Commission, the Department of Energy and the Geothermal Consortium to provide seminars and workshops. And, they partnered with the following groups or associations to bring energy efficiency education to their members:

Partnerships (2002 and 2003)

- U.S Dept. of Energy (Rebuild America Program)
- BOC (Northwest Energy Efficiency Council)
- Lawrence Berkeley National Laboratory
- Oakridge National Laboratory
- National Renewable Energy Laboratory
- California Community Colleges (Victor Valley)
- California Society of Hospital Engineers (CSHE)
- American Society of Mechanical Engineers (ASME)
- Irwindale Chamber of Commerce
- African American Salon Owners
- Maintenance Superintendents Association
- Metal Heat Treaters Assoc.
- Union Roofing Contractors Assoc.
- California Conservation Corps.
- Paiute Indian Association
- San Gabriel Mountains Regional Conservancy
- Federal Energy Management Program/Dept. of Energy
- Integrated Waste Management Board, Calif. Dept. of General Services and HDR Architecture, Inc.
- Hispanic Chamber of Commerce
- City of San Bernardino/Riverside Co.
- U.S. Navy, Port Hueneme
- Assoc. of Professional Energy Managers (APEM)
- U.S. Environmental Protection Agency/Committee on the Environment(Laboratories

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- Antelope Valley area Chambers
- Fisher Nickel, Inc. - Food Service Workshops
- Refrigerating Engineers and Technician Association (RETA)
- Association for Efficient Environmental Engineering Systems

The SCE Education and Training Program also includes such services as offsite classes and presentations and participation in trade shows and other community events.

Implementation Strategy & Activities

The Education and Training Program has and will continue to assist with the diffusion of energy efficient technologies and practices into the market, covering both the residential and nonresidential markets. Primary venues for this are the CTAC and AgTAC facilities which provide education in the form of seminars, workshops, displays, demonstrations, technical consultations, facility presentations, fact sheets, and brochures. In addition, information is provided to the hard-to-reach customers by taking specific seminars and presentations to offsite locations.

Activities in 2004-2005 will build on the successes of the 2002-2003 Program. Strategically, emphasis will move even more toward the underserved markets of small to medium commercial and industrial and also those located in rural areas. Promotion of activities will be directed more specifically to these markets, although not to the exclusion of other customers.

Innovative products and technologies will not succeed if they are not adopted in the market place. There are **core seminars and workshops** upon which the energy centers have consistently relied to educate its markets and promote the adoption of innovative products. These include Commercial Industrial Lighting, HVAC for Commercial Facilities, Motors/ASDs, Energy Efficient Refrigeration classes offered at the Refrigeration and Thermal Test Center (RTTC), and others. As in past years, these core subject classes are constantly reviewed to insure they are current and accurate, and that they support current EE program offerings. More **specialized topics** include Compressors/air leak certification, Energy Efficiency for Schools, and the Clean Water Conference, Irrigation Workshops, Industrial Maintenance, Wastewater Treatment, and Groundwater Wells & Pumps. In 2004, the energy centers will continue to expand their specialized offerings to meet customer needs. For example, the Energy Efficiency Pumping Class will involve AgTAC's existing outdoor low pressure exhibit for hands-on training. As stated above, they will also enhance their marketing activities to better reach Hard-to-Reach customers.

AgTAC Power-Up Program – Connects with local elementary schools on topics of energy use and efficiency. Annually, over 200 students participate in researching

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and presenting information to judging panels comprised of local business representatives within the community.

Supporting the educational curriculum at the energy centers are, as quoted earlier from the KEMA-XENERGY report, "... exhibits and displays that range from showcasing equipment to demonstrating operation of specific applications. Their presence at the centers reinforces information provided by seminars and workshops and provides information in areas that may span beyond what is contained in a specific class that a customer attends. They create an atmosphere of specialized knowledge in energy issues, which lends credibility to the available information." The variety of exhibits and displays offered by the energy centers has been developed over the years to enhance programs, class instruction, and training methods.

~~Activities for the Product Labeling and Information Services program elements will occur throughout the calendar year.~~

III. Customer Description

A. Customer Description

~~The energy centers portion of the Education and Training program targets the customers described in Section I, Market Segments Targeted. Customers of all sizes are included. The Hard to Reach criteria used to specifically target those customers consist of both location and size. A study completed in 2001 by Xenergy Consulting, Inc., showed that customers most likely to attend seminars will come from within a 50 mile radius of the location. Therefore, seminars are considered HTR if they are held in an area where a high percentage of the zip codes within the surrounding 50 mile radius are rural. They are also considered HTR if the majority of customers attending have come from a rural zip code or are considered small (<20kW), regardless of where the seminar is held.~~

~~The Information Services program targets commercial, industrial, and agricultural customers of all sizes. The Product Labeling element targets manufacturers, distributors, retailers and contractors to increase customer awareness of energy efficient products.~~

B. Customer Eligibility

~~All SCE customers are eligible to attend seminars at the energy centers. Commercial, industrial, and agricultural customers all are eligible under the Information Services program. The Product Labeling program element is not delivered directly to end use customers, but is directed to the equipment supply chain to increase customer awareness of energy efficient products and opportunities for potential rebates.~~

Display and demonstration upgrades planned for 2004-2005 include:

- New exhibits planned for AgTAC

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- Ground Source Heat Pump Exhibit – comparative real-time demonstration of conventional and GSHP systems (water source and direct burial refrigerant lines)
- Technology Trailer - Mobile unit for off-site outreach technology demonstrations
- New High Performance Glazing Display
- Air Compressor Display
- High Efficiency Package Air Conditioner display
- Displays that will demonstrate low e roof tiles and paints
- Exhibits involving wireless technologies for real-time control and data acquisition for equipment and motor applications
- AgTAC Upgrades to Outdoor Demonstration Grounds
 - Low Pressure Pumping Exhibit – water flow measurement and control instrumentation
 - Irrigation control system exhibit improvements
- AgTAC Upgrades to indoor exhibits
 - Twin 5HP Variable Speed Drive Display
 - Energy Efficiency Kiosks – information and equipment improvements
 - Hi-Bay lighting demonstration expansion
 - Light Lab and Business Center exhibit upgrades
 - High Intensity Discharge and Induction lamps
 - LED and Flat panel Lighting applications
 - New Fluorescent System displays
 - Lighting Energy Management System
- AgTAC has proposed the addition of a new state-of-the-art 3200 square foot building. It would serve to increase exhibit and display space on-site at AgTAC for customers and to be a “living display” of the most current technologies. The new building insulation qualities would be R50 rated and would utilize energy efficient “Cool Roofing” technology. This addition is contingent upon available capital funding.
- CTAC remodel of the Commercial Products Center will include new exhibits such as:
 - New High Performance Glazing display
 - New Energy Management System display
 - High Efficiency Package Air Conditioner display
 - Displays that will demonstrate low e roof tiles and paints
- CTAC is continuing to upgrade the Lighting Products Center with new exhibits that will include:
 - High Intensity Discharge and Induction lamps
 - LED and Flat panel Lighting applications
 - New Fluorescent System displays
- Other technology demonstration enhancements throughout CTAC will include:
 - Variable speed drive compressed air system

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- New electric motor and drive demonstration

The energy centers' staff will continue to be available to provide **consultation to customers** regarding their energy needs, insuring that they are advised in the most energy efficient methods to meet those needs. This is done in person, by phone, and by e-mail, both direct and web site generated.

The **SCE Energy Centers web site** will be updated as needed to provide customers with information about CTAC and AgTAC and its offerings as well as providing a link to information on other EE products and services. It will also link to technical information sites as appropriate and in compliance with all affiliate and energy vendor guidelines.

C. ~~Customer Complaint Resolution~~

~~Customers who attend seminars are asked to complete an evaluation form asking for feedback regarding the class content, the instructor, and the facility. Evaluations are reviewed after each seminar and both numeric results and verbatim comments are stored in a tracking system.~~

~~Specific questions or complaints, which are very few, are handled on a case by case basis. Complaints under the Information Services and Product Labeling elements may be directed to SCE program personnel.~~

D. ~~Geographic Area~~

~~Customers residing in the SCE, SDG&E or PG&E service territories.~~

Through the venues described, the energy centers will continue support of other EE products and programs. For example:

- CTAC supports the Building Operator Certification Program by providing a facility for their classes and coordinating the booking and logistics.
- The Energy Centers support Savings By Design by presenting classes in Title 24 Nonresidential EE Standards, eQUEST, Lighting & Daylighting, Skylighting, and others. The program is also promoted during those seminars through a short presentation.
- The Energy Centers support Express Efficiency and SPC by distributing information materials and applications to customers visiting the center and includes presentations on these programs in appropriate seminars. CTAC also provides a venue and helps coordinate Vendor Program Roll-Outs.
- The Energy Centers serve as venue for technology assessment by the Emerging Technology Program:
 - CTAC's new Daylight Center showcases such things as electrochromic glass, displacement ventilation, window shading, and light shelves that are being monitored and assessed by the Emerging Technology engineers.

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- Evaluation by the Emerging Technology Program of the Cool Roofs technology resulted in the partnership that produced the Cool Roofs seminars offered at the energy centers.
- The types of technology evaluations that are being planned at the RTTC include (partial list):
 - The performance of glass front beverage vending machines to address the impact of hot and dry ambient conditions on customer's energy costs
 - The impact of energy efficient technologies on performance of a solid front beverage vending machine
 - The impact of reflective coating on performance of roof top air conditioning units
 - The effectiveness of various ceiling luminaries at different room cavity ratios by providing a designated space with adjustable ceiling height.
 - Lamp life characteristics.
 - Effectiveness of typical exterior signage
- Business Solutions is supported through Program Rollout events as well as events targeted to specific audiences, such as Korean dry cleaners and African American solon owners. This is in addition to the portable information kiosks described in Section I.C.

Outreach activity in 2004-2005 will continue to support Major Customer Division personnel in their efforts to communicate and educate SCE's commercial and industrial customers, both small and large, about energy efficiency programs, rebates and incentives, and new technologies. Outreach is looking into the prospect of partnering with an energy association to conduct a customer energy efficiency expo, which would include vendors, manufacturers, associations, and professional organizations, and mini-training sessions. Outreach also supports energy efficiency events, industry conferences, community events, and energy associations with displays, staffing, materials, and hands-on exhibits, including the Energy Star office exhibit. Exhibits and displays complement the face-to-face customer interaction that is essential to understanding technologies and getting answers to important questions. Many customer discussions lead to increased interest in energy efficiency, rebates and incentives, and new technologies. As a result, those inquiries are given to account management and program managers, who follow-up with the customer.

Informational Services

SCE's energy education and information services element is designed to promote a permanent change in the way nonresidential customers make decisions about equipment purchases and operational practices by informing them of no-cost, low-cost, and retrofit energy options. While this program is available for all nonresidential customers, it targets medium and large customers with the ability to

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change practices and incorporate hardware measures to achieve large energy savings, customers located in transmission constrained areas identified by the California ISO, and hard-to-reach areas within the SCE service territory.

IV. ~~Measure and Activity Descriptions~~

A. ~~Energy Savings Assumptions~~

~~Section IV.A is not applicable. Based upon the California Public Utilities Commission's (CPUC) approved Energy Efficiency Policy Manual, an information only program is not reasonably expected to provide an estimate of energy savings. The lack of energy savings, capacity savings, therm savings, resource benefits, or a TRC ratio for any particular program, i.e., information programs, should not imply that a measure or program does not promote energy efficiency. Neither should it imply that there is no impact to the customer's use of electricity or natural gas, nor a corresponding impact to the electricity or natural gas system.~~

B. ~~Deviations in Standard Cost-effectiveness Values~~

~~Section IV.B is not applicable.~~

C. ~~Rebate Amounts~~

~~Section IV.C is not applicable.~~

D. ~~Activities Descriptions~~

~~Program related activities not directly tied to measurable energy savings include seminars and workshops, displays and exhibits, consultations and demonstrations, marketing and outreach, and customer contacts / visits. Administrative activities such as facilities support, supplies, information technology support, and office management supplies also support the ability to deliver the program to customers.~~

V. ~~Goals~~

~~As described in Section I, Program Objectives, the filed targets for the Education and Training Program will be:~~

- ~~• 175 seminars, and~~
- ~~• Of these, 75 will be HTR.~~

VI. ~~Program Evaluation, Measurement and Verification (EM&V)~~

Customers need reliable information regarding energy efficiency programs and technologies that they can integrate with confidence into their facilities and business operation practices. The program targets nonresidential agricultural, commercial and industrial customers of all sizes. SCE representatives use a variety of outreach medium, such as face-to-face consultations, email, phone calls,

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and direct mail communications, to ensure awareness of energy center seminars, energy efficiency incentive and rebate programs, and the benefit and viability of energy efficient technologies.

Once customers have received information on the programs and services that are available to them, SCE's field representatives follow-up to ensure customers know what areas within their facilities to pursue energy savings. They do this through offering and performing nonresidential audits, inviting customers to specific seminars or workshops that fit their business, and assisting them with applying for and completing projects that qualify for incentives. It is this "interlinked network of programs and services" that has proven successful in achieving the energy savings and peak demand reductions documented in the incentive programs. The Information Services program starts the process and provides the funding by which SCE's field representatives assist customers all along the way to identify, evaluate, and take action on methods to achieve energy savings.

SCE's, over a decade of experience delivering information services offerings has resulted in:

- In response to customer interest and to increase cost-effective delivery of information, SCE has learned to develop new contact methods, such as internet messaging, to improve visibility, speed up the process, and minimize costs.
- Use of electronic media by SCE account representatives to keep customers update on energy efficiency issues and technologies is on the increase. Information Services activity is focused on the increasing the effectiveness of communication in the form of electronic newsletters, e-mail messages, and the internet.

Information communicated to the customer is designed to address their specific energy concerns by

- Supplying information on the availability and benefits of energy efficiency measures to reduce energy consumption and costs.
- Identifying viable technologies and practices the customer can adopt with confidence.
- Emphasizing long-term cost effectiveness of the equipment change over short-term standard-efficiency measures.
- Raising awareness of the availability of statewide incentive and rebate programs to mitigate the additional cost of installing energy efficient equipment.
- Providing an unbiased resource for energy efficient practices and measures.
- Establishing a conduit between the customer and the energy efficiency incentive and rebate programs, providing information to customers and feedback to the program managers.

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Information Services works with the incentive and rebate program managers to develop the content of the communications message, then contacts nonresidential customers using in-person, telephone, newsletter, mail, e-mail and facsimile contacts, based on the customer preference, to ensure cost-effective dissemination of the information to all customer types regardless of size and location. SCE promotes energy efficiency programs to larger customers by first informing the customer of energy options, educational programs, and incentive and rebate programs through a newsletter. The information is followed with an in-person visit and/or phone call, with additional follow-up when customers have shown potential for savings, interest, or action on energy efficiency measures. Changes to incentive and rebate programs or identification of new energy options are communicated through a newsletter article and/or other communication targeted at identified decision makers.

While energy savings and peak demand reductions are not claimed for this information only program, information services is the starting point for many customers for participation in incentive and rebate programs, and many customers may not have done so without the increased awareness and information gained from the information services program.

~~A. General Approach~~ **Product Labeling**

In 2004-2005, SCE will continue its Product Labeling Program to Evaluating Program Success

~~This statewide evaluation plan was developed in accordance with EM&V requirements as specified in the current~~ complement the Statewide Single Family Energy Efficiency Policy Manual. The Manual does not require Rebate (SFEER) Program and to address the evaluation plan for this information only program to have a measurement and verification component. Pursuant with CPUC instructions, this plan should not be regarded as final. A final, more complete plan will be specified in accordance with market barrier of the forthcoming New California Evaluation Framework and the Protocols at a later date. lack of available high efficiency products. The objective of the program is to improve the distribution and sale of energy efficient products through education and training to market actors. SCE works with manufacturers and retailers to improve the distribution, floor stock allocation and sales of qualifying energy efficiency products. The program provides training to home improvement retailer sales staff and to pool retail stores on available rebates offered through SCE's SFEER program. The program also disseminates rebate information and point-of-sale marketing materials to increase consumer awareness.

~~The evaluation will entail both a market assessment, including a verification of program targets and participant/customer behavior analyses, and a process evaluation of the statewide program. These activities will assist with assessing market impacts and awareness of energy efficient measures, practices, and technologies resulting from the dissemination of information by the energy centers.~~

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~~Activities will include the assessment of awareness and behavior with respect to energy efficient technologies among the target audience population, and the assessment of the program's success in reaching hard to reach customers. In addition, the study will evaluate and document program accomplishments, noting best practices and potential strategies for improving the overall program design. During the 2003 program, SCE provided field services for more than 250 pool retailers in our service territory to promote high efficiency pool pumps and motors. This activity involved: 1) installing a color postcard size label on every floor display pool pump letting customers know they could save up to \$300 on the purchase of the energy efficient version; 2) placing a special one-page rebate application at the cash register with another color advertisement bringing the customer's attention to the offer and 3) training sales personnel on to the requirements for the rebate program.~~

~~B. Approach to Measurement and Verification of Energy and Peak Demand Savings~~ ~~In addition to supporting pool retailers, SCE provided field support for Home Depot to label ENERGY STAR® qualified programmable thermostats and disseminate rebate information for high efficiency electric water heaters and whole house fans. In all Home Depot stores, we posted store coupons for SCE's point-of-sale \$20 rebate on ENERGY STAR® qualified programmable thermostats. For Lowe's and Home Depot, SCE provided special one-page rebate applications for water heaters and whole house fans and had the applications posted next to the products on display in the home improvement centers.~~

~~This program is identified as an information program. Consequently, this evaluation is not intended to measure and verify program energy and demand savings.~~

~~C. Approach to Evaluation Program Success~~

~~The proposed evaluation of the Education and Training program's success will primarily document the accomplishment of the goals laid out above. The success of the program will also be gauged by a process evaluation and an updated market assessment and customer behavior analysis study. These studies will provide (a) ongoing feedback and corrective guidance regarding program implementation and delivery to customers through program process evaluation, and (b) measured indicators of the program effectiveness through analysis of market data and customer satisfaction.~~

~~D. Potential EM&V Contractors~~

~~The contractors proposed below can objectively evaluate program success and have performed impact evaluations, measurement and verification studies, process evaluations, markets assessments, and verifications of program accomplishments. These are firms that have a track record of completing high quality, objective evaluations of energy efficiency programs either for the California investor owned utilities or for other entities whose studies we have been able to review. This list does not include all of the qualified evaluators who could objectively evaluate~~

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program success. The final list of evaluation consultants will be based on several factors including: future Commission decisions, the mix of approved programs and the experience of the evaluation consultants.

- ~~ADM Associates~~
- ~~Architectural Energy Corporation (AEC)~~
- ~~Heschong Mahone Group~~
- ~~Itron (RER)~~

- ~~KEMA XENERGY~~
- ~~Quantum Consulting~~
- ~~PA Consulting Group~~
- ~~RLW Analytics~~
- ~~TecMARKET Works~~

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~~VII. Qualifications~~

~~A. Primary Implementer~~

~~Energy Centers/Outreach~~

~~CTAC has been in operation since 1990, and AGTAC has been in operation since 1996. Since inception, the centers have maintained or increased participation in the program with little change in budget. The number of EE events at the centers increased from 65 in 1998 to 215 in 2002. In addition, energy center personnel taught 6 classes in 1998, compared to 65 in 2002. The Outreach organization has coordinated participation in trade shows and community events for more than 20 years.~~

~~Information Services~~

~~SCE has substantial years experience in designing, planning and implementing energy efficiency programs which are designed to help nonresidential customers with information on the benefits energy efficiency options, measures or adopting practices that can reduce their utility bill.~~

~~SCE is responsible for managing and implementing the statewide Education and Training program within SCE's service territory. As a whole, SCE is uniquely qualified to provide the core of statewide and local programs that form a solid and reliable foundation of energy savings opportunities that our customers and the State can rely upon. Over the years, SCE has developed energy efficiency experience, expertise and a support infrastructure that is second to none. Moreover, our long term commitment to and credibility with our customers are critical to widespread acceptance of energy efficiency information and recommendations for action. Finally, SCE provides ironclad accountability to our regulators and the customers we've served for over a century that is invaluable to ensuring that public money is appropriately spent.~~

~~SCE's experience in energy efficiency is a century long. We began assisting customers in the wise use of energy in the early 1900s, when we first began helping our agricultural customers to test the efficiency of their electric pumps. Beginning in the 1980's, the energy efficiency programs designed by SCE have been nationally recognized and have helped California assume a leadership role in energy efficiency. Continuing this tradition of excellence in energy efficiency, SCE's 2004-2005 portfolio of statewide and local programs incorporates innovation into our proven track record of program success in all program areas:~~

~~Residential~~—~~SCE's participation in the delivery of residential programs began in the early 1980s, when we began offering comprehensive audits that linked information collected in customer homes by certified energy service representatives to actual billing histories. Through this unique service, customers received immediate audit results that directed them to rebate programs available for recommended energy saving measure and device retrofits. Conservation~~

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information materials were also made available to customers for the first time. Today, SCE continues this two-decade tradition through a similar close combination of residential information, energy survey, and rebate services, but updated to reflect today's technological advances. With a staff comprised of energy efficiency experts with professional experience in other business fields, SCE has designed modern programs that offer a variety of energy efficiency tools on-line, including information, energy use calculator/estimators and an energy survey that provides instantaneous recommendations based on each participating customer's energy use. Strong business relationships between SCE and major retailers now enable SCE to pay incentives directly to a customer through several delivery mechanisms: as the result of an application process, at the cash register, or as part of price buy-downs at the manufacturer level. Staff with marketing knowledge develops strategies that call out the best and most efficient method of reaching the right customer group with the program mix that best matches their needs.

Nonresidential—Southern California Edison has provided nonresidential customers with energy efficiency programs under the direction of the Commission since 1976. Early programs provided information to customers on how to use energy more efficiently through improved operations and maintenance practices. Since that time, SCE's programs have evolved, expanded, and diversified into a comprehensive mixture of information and incentive programs. SCE is a national leader in the development and operation of performance-based energy efficiency incentive programs including DSM Bidding and Standard Performance Contract Programs. Our programs have tracked the evolving goals of the Commission, the needs of the marketplace and input of the many stakeholders in the energy efficiency industry. Most important, SCE's customers have grown to trust the utility as the single, unbiased source of energy efficiency information, services and programs. No matter what else was happening to affect customer opinion of the utility industry, our business customers continued to look to SCE for assistance in managing their energy use and costs.

New Construction—For over 20 years, Southern California Edison has designed and operated programs aimed at improving the energy efficiency of new buildings, both residential and nonresidential. Whether through financial incentives, technology showcases, builder and consumer education, or assistance to design professionals, SCE programs have effected significant, permanent improvements in the energy efficiency of new buildings in its service territory. Since the early 1990s, builders participating in SCE's residential programs have built over 50,000 homes that exceeded state building standards. For nonresidential new construction, SCE has refined and enhanced a wide array of educational and design assistance tools, including free state-of-the-art online technical assistance, for the commercial building industry. We have a well-respected group of design professionals on our staff including architects and engineers, and we have

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established alliances throughout the design and construction industry with organizations such as AIA, ASHRAE, IES, AEE, IEEE, and CEE.

The program design and implementation team who plan, administer, deliver and support our programs provides unparalleled expertise in energy efficiency programs. Our program managers have an average of ten years of experience in energy efficiency and related customer service activities and are supported by a veteran staff of technical experts in all facets of energy efficiency. Our design and technical support staff have over 300 years of combined experience, over two-thirds are licensed by state or federal organizations, and over half have advanced degrees. Our program design and evaluation staffs also have extensive first hand knowledge of the customer demographics unique to SCE's service territory. After all, for over 100 years we've lived and worked with the customers we serve.

Finally, as a utility who serves all of the energy needs of all of our customers, SCE also has an existing infrastructure of support functions (such as accounting, regulatory and legal departments), systems (such as our program tracking and reporting systems) and facilities (such as our energy centers) that we use to facilitate the successful implementation of our programs. Further, our long term relationship with the Commission and the customers we serve further ensures that our customers will be well served and protected. Using the experience and resources described above, SCE stands ready to satisfy our customers' energy efficiency needs and meet the Commission's policy objectives.

B. Subcontractors

SCE uses a variety of subcontractors for tasks including graphic design, exhibit construction and maintenance, lighting consultations, program and seminar development, specialized staffing needs, facilities support, and other administrative support.

C. Description of Expertise

David Bruder, Lead IOU Project Manager

Mr. Bruder is a registered mechanical engineer with over 22 years of experience in energy efficiency program management, facility design and construction. As a project engineer for a major engineering and construction firm, David led and coordinated multi-discipline teams of engineers and architects in the design of large, complex industrial facilities. At Southern California Edison, David oversees all aspects of a portfolio of non-residential energy efficiency programs, including DSM Bidding, Standard Performance Contracts, and Express Efficiency. His responsibilities include design and implementation of programs, as well as managing cost and schedule, and tracking and reporting program status to management and the CPUC.

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Bill Grimm, Manager, Nonresidential Energy Efficiency Programs

Bill Grimm is the Manager for SCE's Energy Efficiency Programs which includes statewide and local energy efficiency programs including the Express Efficiency Program, Nonresidential Energy Audit Program and the Small Nonresidential Hard To Reach Program. He has 13 years experience in energy efficiency, including 11 years designing and managing rebate and audit programs for residential and nonresidential customers, with 8 years designing and managing upstream programs in the areas of lighting, motors, HVAC, major appliances, home electronics, and window systems. Bill designed and managed the nation's first ENERGY STAR® product labeling program, and the first "upstream" incentive program, dubbed the manufacturers wholesale cost reduction (buy down) method. The method has been adopted nationwide by energy utilities and internationally by a World Bank affiliate for operation in third world countries. Bill's prior work included new product development and market management for a computer services division of a major aerospace firm, and sales/ sales management for midrange computer manufacturers.

Ed Flores, Program Manager, Nonresidential Energy Audits Program

Ed Flores has over 32 years of utility experience, 22 years with energy efficiency programs, renewable energy and 4 years in managing the following energy efficiency programs: Residential Lighting & Appliance Program, Mobile Education Unit, and Nonresidential Energy Audit Program. He has implemented financial incentive, education/information, energy audit and market transformation programs in the residential and nonresidential sectors. Ed brings a unique program management background with a combination of both depth and breadth of experience in managing energy efficiency programs. He also is Certified as a California State Energy Auditor.

Thus far in 2003, we have seen noticeable increases in program participation. Pool pump participation is significantly higher than last year's results, approximately 20%, and we expect to achieve an increase of approximately 100% in programmable thermostats over last year. We are planning similar activities for 2004, expanding to other measures. Additionally, for 2004-2005, a greater emphasis is planned for the point-of-sale method of delivery. We expect therefore a greater reliance on the role of product labeling in the retail stores to support this effort.

B. Marketing Plan

AgTAC/CTAC Marketing Plan – Seminars and workshops at AgTAC/CTAC are marketed through a variety of media, including:

- Quarterly Mailings – There are four mailers sent out each year. Each mailing goes out to approximately 9,000 AgTAC and 39,000 CTAC customers, most located within a 50 mile radius of the energy center. The mailer consists of a listing of the classes offered, dates and times for each, and a brief description of what is covered. Cost for each quarterly mailer is

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approximately \$6,000 - \$11,000 for AgTAC and CTAC respectively. Field representatives also share the schedule of classes with their customers and contacts, recommending specific classes to individual customers or individuals based on the end-uses or possible technologies those individuals may be considering.

- Joint Utility Promotion – In cooperation with SDG & E, PG & E, and The Gas Company, all energy efficiency classes offered at AgTAC/CTAC are promoted in the other utilities' own energy centers. As just one example of the statewide coordination within this program element, all energy efficiency classes offered at AgTAC are advertised in PG&E's semi-annual mailers. This includes the mailer from the Pacific Energy Center going out to 19,000 customers and the one from the Stockton Training Center, which goes out to 14,000 customers. There is no cost to Edison for this joint promotion and inclusion in their mailers.
- EnergyEfficiencyCenter.com – This joint utility website features class listings for each of the State's energy centers. Class schedules are updated throughout the year and provide customers a one stop shopping location to find what workshops are available to help solve their energy efficiency needs.
- SCE.com – This is Edison's website which contains all of the various programs and services offered through Edison, including a schedule of classes offered at AgTAC/CTAC. Customers will find a comprehensive list of programs and services detailed throughout the website and are able to make clear choices for those that could potentially meet their energy needs.
- AgTAC Freeway Sign Board – All energy efficiency workshops are advertised on this sign board located on the facility grounds adjacent to Highway 99. Thousands pass the facility on a daily basis.
- AgTAC to expand methods of communications to customers on subjects of energy efficiency thru the use of LED message boards and kiosks.
- Targeted Seminar Mailings – Workshops and seminars may require a separate mailer to reach certain customers segments or customer types. These mailings may be sent out to a limited number of customers, segment support groups, and product related vendors. Costs average approx. \$500 based on volume of mailers sent. Forecasted mailers include:

<u>Flyer</u>	<u>Designing Sustainable Libraries</u>	<u>\$361.17</u>
<u>Flyer</u>	<u>Foodservice Equipment Performances</u>	<u>\$391.76</u>
<u>Flyer</u>	<u>Energy Efficiency in Education Series</u>	<u>\$410.37</u>
<u>Flyer</u>	<u>Energy Efficient Small Business Seminar</u>	<u>\$516.42</u>
<u>Flyer</u>	<u>Cool Roofs Seminar</u>	<u>\$548.19</u>
<u>Flyer</u>	<u>Rebuild America Workshop</u>	<u>\$627.60</u>
<u>Flyer</u>	<u>Cool Roofs Seminar</u>	<u>\$658.78</u>

Informational Services Marketing Plan – SCE plans to complete more than 30,500 direct communications providing energy efficiency information to

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commercial, industrial, and agricultural customers each year in the 2004-05 program years. SCE will use in-person, telephone, newsletter, mail, e-mail, and/or facsimile contacts, at different times in the communications process, and with different customers, based on cost effectiveness and customer preference. All assigned customers will be contacted at least once regarding the 2004 and 2005 energy efficiency nonresidential energy audit, incentive, and rebate programs.

During these contacts SCE intends to provide the customer appropriate information supporting:

- Awareness of Energy Center seminars and workshops and Outreach efforts.
- Utility administered Energy efficiency incentive and rebate programs, such as Express Efficiency, Standard Performance Contract, Savings By Design, and Building Operator Certification, as well as, non utility implemented energy efficiency programs.
- The benefit and viability of energy efficient practices and technologies.

Product Labeling Marketing Plan – The 2004-05 program will include activities such as installing a color postcard size label on floor display pool pumps to let customers know they can save up to \$300 on the purchase of energy efficient pumps. Other marketing activities include provision and placement of rebate applications at the cash registers, and training sales personnel on the requirements for the rebate program. Similar marketing activities will be utilized for other measures such as energy efficient electric water heaters and whole house fans.

Customer Enrollment **Energy Centers**

Several methods are used to enroll in classes at CTAC and AgTAC, including:

- Completed Registration Form from quarterly mailer
- FAX Request
- E-Mail Request
- Phone Request
- Walk-in Registration

Each customer application entails gathering pertinent customer data for tracking purposes. Completed registration is then followed up with a FAX and/or phone confirmation of customer request. Map and directions are sent to customer to maximize attendance. Customer information is entered and stored in database.

Information Services

Customers may contact SCE through a variety of means to obtain information or request specific resources offered through this program component. The most common method of communication is by contacting their SCE account representative directly or by contacting the Customer Communication Center (Customer Service Phone Center).

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Product Labeling

It has long been recognized that influencing a customer while he is at the point of making a purchase has a great effect on the outcome of his decision. Since a great deal of the products eligible for rebate on the SFEER program are offered through home improvement stores and other retailers, SCE incorporated as a part of its Education and Training program what we called Product Labeling. Product labeling is our effort to influence the customer to select the energy efficient version of whatever product he went into the store to purchase. To do this, we team with the retailers. We send field personnel out to the stores to educate the stores' sales representatives on the floor as to what is eligible for rebate and why. Further, we post attention grabbing materials in the aisle so that in the absence of influence from the store's sales reps, the customer will see the rebate offer for the energy efficient version as he is trying to decide which model to purchase.

C. Materials

N/A

D. Payment of Incentives

This program and its components are an information only program and does not provide incentive payments.

E. Staff and Subcontractor Responsibilities

Energy Centers Staffing

Managers – Energy Centers

Overall management responsibilities of Energy Center employees, programs & activities, and facility operations. Manages Energy Center events (scheduling, coordination, logistics); educational services (workshops, seminars, special events); budget; policy. Manages and directs the technical functions and services at CTAC and AgTAC including facility planning, operation and maintenance.

Manager - Outreach and Communications

Overall management responsibility for Communications and Outreach employees, programs, projects, and operations. Manages and maintains the Outreach budget. Plans for the following year's activities, budget, displays, and makes presentations to management. Assists with graphics design, development and copy.

Manager – Project Manager - Outreach

Responsible for staffing Outreach events to support MCD efforts. Extensive knowledge of energy efficient, conservation and emerging technologies, and rebate and incentive programs, such as Express Efficiency. Assists with development of small, portable displays.

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Managers – Project/Program

Manages educational seminars and workshops, conducts targeted marketing activities, manages contract vendor relationships, oversees energy center website, calendar and marketing ventures, database tracking and development, departmental reporting, manages registration/administrative staff. Responsible for designing enhancements and upgrades to the buildings as well as maintenance and operation; supervises graphic and facility operation activities; manages research projects; upgrades and maintains technology exhibits; may be responsible for grounds maintenance and security; serves as instructor for seminars and training classes.

Consulting Engineer/Engineer

Responsible for managing the installation of facility enhancements and new exhibit/demonstration projects from planning to completion; providing technical review of approved emerging technologies to determine if feasible for installation at the Energy Centers; identifying and supporting the development of new seminars and related exhibits and demonstrations; serving as an instructor for seminars and training classes.

In addition, may manage specialized technical centers; develop projects; oversee operations; provide technical reviews and develop new seminars.

Supervisor

Oversees the CTAC Event Scheduling and Coordination Department, manages supplier/contractor vendor relationships, oversees catering and porter staff, departmental reporting and data tracking

Technical Specialists

Responsible for maintenance and operation of the Energy Centers' Technical Centers; assists the Engineer with development, enhancement, and upgrades to exhibits and demonstrations in the technical centers; provide technical consulting and assistance to customers and SCE personnel; serves as an instructor for seminars and training classes.

Cheryl Wynn, Manager, Residential Energy Efficiency Programs

~~Cheryl Wynn has over 11 years of experience in designing and implementing energy efficiency programs and services for SCE. She has implemented financial incentive, education/information and market transformation programs for residential and small business customers. With a career that includes managing local, statewide, cross-cutting, and third-party programs to achieve public policy energy efficiency goals, Cheryl brings a unique blend of expertise in the residential market and strategic planning and execution necessary for this position. She has managed SCE's Statewide Appliance and Lighting Programs, Statewide Single Family Energy Efficiency Rebates, Statewide Home Energy Efficiency Surveys, Refrigerator Recycling, Local Residential In Home Energy Surveys, Residential Energy Guides, Energy Efficiency Mobile Education Unit, Energy Efficiency~~

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~~Website and several Third Party and Summer Initiatives. She also worked on national and statewide teams to support the DOE/EPA's Energy Star® program and statewide marketing and outreach campaigns. As manager of Residential Energy Efficiency Programs, Cheryl leads a staff of program managers and cross-functional teams to implement SCE's Statewide Single Family Energy Efficiency Rebates, Statewide Home Energy Efficiency Surveys, Local In Home Energy Surveys and several Local Third Party Contracts.~~

Provides technical support for the specialized technology centers, evaluate projects, coordinates the maintenance and operation of the technical center; assists in training workshops and provide tours of the technical center.

Analyst – Program and Project

Handles logistics and calendar, assists with graphics in development of displays and exhibits. Processes invoices, inventories materials, displays, and mementos. Keeps data on number of events, staffing, and costs.

Subcontractors

SCE has and will continue to use the expertise of a variety of third parties to assist with the delivery of the Education and Training Program. Consultants with specific subject knowledge assist with the development and delivery of seminars. Construction of displays and exhibits is managed by SCE but completed by qualified experts. Third parties also provide services in the areas of specialized staffing needs, facilities support and maintenance, and other administrative support.

VIII. Budget

Information Services

Program Budget	
Total Program Budget	\$11,797,001
Administrative	\$4,788,000
Marketing	\$4,404,200
Direct Implementation	\$2,407,800
EM&V	\$197,001
Other	

Manager –

Program

The Program Manager designs and implements the program with statewide consistency. This includes overseeing all aspects of program planning, promotion, deliver, tracking, and reporting.

Manager - Implementation

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The Managers are tasked with providing guidance to subordinates ensuring delivery of programs, development of relationships, ensuring knowledge level, and development of module plans to optimize customer contacts.

Account Manager/Account Executive/Account Analyst

Account Managers, Account Executives, and Account Analysts are tasked with the developing contacts with information providers and decision makers within their customer base and leveraging the relationships to promote energy efficiency opportunities. Each representative is familiar with and is responsible to promote the nonresidential energy center seminars, outreach efforts, energy audits, and rebate and incentive programs, including Express Efficiency, SPC, and SBD.

Engineer/Technical Specialist

Engineers and Technical Specialists provide technical assistance to SCE personnel on more complex customer contacts. They have extensive knowledge of commercial, industrial, and agricultural buildings and systems, and are knowledgeable of nonresidential energy efficiency energy center seminars, outreach efforts, audits, incentives, and rebate programs.

Subcontractors

Subcontractors are not used in this program component.

Product Labeling

Manager – Program

The Program Manager designs and implements the program with statewide consistency. This includes overseeing all aspects of program planning, promotion, deliver, tracking, and reporting.

F. Work Plan and Timeline for Program Implementation

** Italicized items indicate event is still under consideration at this time.*

() Number in bracket, identifies the number of events of this type that will be held in the month listed.

<u>Event Type</u>	<u>Energy Centers Seminars – 2004 Estimated Timeline</u>	<u>Hard to Reach</u>	<u>CTAC/ AgTAC</u>
<u>January</u>			
<u>Seminar</u>	<u>Basic Heating, Ventilation & Air Conditioning (HVAC)</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Commercial & Industrial Lighting</u>		<u>CTAC</u>
<u>Seminar</u>	<u><i>Energy Efficiency Seminar</i></u>		<u>CTAC</u>
<u>Seminar</u>	<u><i>HTR Energy Efficiency Workshop</i></u>	<u>X</u>	<u>CTAC</u>
<u>Seminar</u>	<u>Commercial/Industrial Lighting</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>Basic HVAC</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>2005 Title 24 Building Standards</u>	<u>X</u>	<u>AgTAC</u>

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<u>Seminar</u>	<u>Prime Movers</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>Evaporative Cooler</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>Industrial Maintenance</u>	<u>X</u>	<u>AgTAC</u>
<u>February</u>			
<u>Seminar</u>	<u>Commercial & Industrial Lighting</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Cool Roofs</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Energy Efficiency Seminar</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Foodservice (Placeholder)</u>		<u>CTAC</u>
<u>Seminar</u>	<u>High Intensity Discharge (HID) Lighting</u>		<u>CTAC</u>
<u>Seminar</u>	<u>HTR Energy Efficiency Workshop (2)</u>	<u>X</u>	<u>CTAC</u>
<u>Seminar</u>	<u>Lighting Fixture Maintenance Workshop</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Package Unit Heating, Ventilation & Air Conditioning (HVAC)</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Premium Efficiency Motors and Adjustable Speed Drives</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Principles of Lighting</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>FSU-CIT Irrigation Workshop</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>CPSLO Irrigation Workshop</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>Compressed Air</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>Technology Update</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>Energy Efficiency Seminar</u>		<u>CTAC</u>
<u>March</u>			
<u>Seminar</u>	<u>Air Handling Systems</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Chilled Water Systems</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Design Strategies for High Performance Glass</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Designing Sustainable Libraries</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Energy Efficiency Seminar</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Energy Management Systems (EMS)</u>		<u>CTAC</u>
<u>Seminar</u>	<u>HTR Energy Efficiency Workshop (3)</u>	<u>X</u>	<u>CTAC</u>
<u>Seminar</u>	<u>Lighting & Daylighting for Architects & Designers</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Rebuild America Series</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Fertigation</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>SCE Engineer Workshop</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>Motors and ASDs</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>Commercial Refrigeration</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>Advanced Lighting Systems</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>Energy Efficiency Seminar</u>		<u>CTAC</u>
<u>April</u>			
<u>Seminar</u>	<u>Advanced Lighting Technologies</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Commercial & Industrial Lighting</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Commercial & Industrial Lighting</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Cool Roofs</u>		<u>CTAC</u>

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<u>Seminar</u>	<u>Efficient Technologies for Commercial Refrigeration</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Energy Efficiency Seminar (Placeholder)</u>		<u>CTAC</u>
<u>Seminar</u>	<u>HTR Energy Efficiency Workshop (3)</u>	<u>X</u>	<u>CTAC</u>
<u>Seminar</u>	<u>HTR Energy Efficiency Workshop</u>	<u>X</u>	<u>CTAC</u>
<u>Seminar</u>	<u>HTR Energy Efficiency Workshop</u>	<u>X</u>	<u>CTAC</u>
<u>Seminar</u>	<u>Lighting Controls for Energy Management</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Lighting Fixture Maintenance</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Lighting Workshop</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Instrumentation and Sensors</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>Air Handlers</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>Chillers</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>Lamp and Ballast Basics</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>Energy Efficiency Seminar</u>		<u>CTAC</u>

<u>May</u>			
<u>Seminar</u>	<u>Foodservice</u>		<u>CTAC</u>
<u>Seminar</u>	<u>How to Manage Your Business's Energy Costs</u>		<u>CTAC</u>
<u>Seminar</u>	<u>HTR Energy Efficiency Workshop (3)</u>	<u>X</u>	<u>CTAC</u>
<u>Seminar</u>	<u>Industrial Maintenance</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Lighting Fixture Maintenance</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Package Unit Heating, Ventilation & Air Conditioning (HVAC)</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Premium Efficiency Motors & Adjustable Speed Drives</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Rebuild America Series</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Technology Update</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Title 24 Non-Residential Standards 2005</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Title 24 Non-Residential Standards 2005</u>		<u>CTAC</u>
<u>Seminar</u>	<u>FSU-CIT</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>Packaged HVAC</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>Industrial Refrigeration</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>SCE Engineer Workshop</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>Energy Efficiency Seminar</u>		<u>CTAC</u>

<u>June</u>			
<u>Seminar</u>	<u>Air Handling Systems</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Chilled Water Systems</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Commercial & Industrial Lighting</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Comparing Motors & Engines as Prime Movers</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Compressed Air System Efficiency</u>		<u>CTAC</u>
<u>Seminar</u>	<u>eQUEST</u>		<u>CTAC</u>
<u>Seminar</u>	<u>HTR Energy Efficiency Workshop (2)</u>	<u>X</u>	<u>CTAC</u>
<u>Seminar</u>	<u>Lighting for Interior Design</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Owning & Operating and Efficient Cooling Tower</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Skylighting for Commercial & Industrial Buildings</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Commercial/Industrial Lighting</u>	<u>X</u>	<u>AgTAC</u>

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<u>Seminar</u>	<u>Basic HVAC</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>Advanced Lighting</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>Energy Efficiency Seminar</u>		<u>CTAC</u>
July			
<u>Seminar</u>	<u>Advanced Outdoor Lighting</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Basic Heating, Ventilation & Air Conditioning (HVAC)</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Commercial & Industrial Lighting</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Commercial Energy Surveys</u>		<u>CTAC</u>
<u>Seminar</u>	<u>HTR Energy Efficiency Workshop (3)</u>	<u>X</u>	<u>CTAC</u>
<u>Seminar</u>	<u>Lighting Fixture Maintenance Workshop</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Lighting Retrofit & Project Management</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Looking at LightFair 2003</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Looking at LightFair 2003</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Package Unit Heating, Ventilation & Air Conditioning (HVAC)</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Premium Efficiency Motors & Adjustable Speed Drives</u>		<u>CTAC</u>
<u>Seminar</u>	<u>SCE Engineer Workshop</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>Energy Efficiency Seminar</u>		<u>CTAC</u>
August			
<u>Seminar</u>	<u>Air Handling Systems</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Chilled Water Systems</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Cool Roofs</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Energy Efficiency Seminar</u>		<u>CTAC</u>
<u>Seminar</u>	<u>How to Manage Your Business's Energy Costs</u>		<u>CTAC</u>
<u>Seminar</u>	<u>HTR Energy Efficiency Workshop (2)</u>	<u>X</u>	<u>CTAC</u>
<u>Seminar</u>	<u>Lighting & Daylighting for Architects & Designers</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Lighting Fixture Maintenance Workshop</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Rebuild America Series</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Light Fair 2004</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>FSU-CIT</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>Energy Efficiency Seminar</u>		<u>CTAC</u>
September			
<u>Seminar</u>	<u>Basic Heating, Ventilation and Air Conditioning (HVAC)</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Boiler and Steam System Technology Seminar</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Energy Management Systems (EMS)</u>		<u>CTAC</u>
<u>Seminar</u>	<u>eQUEST</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Foodservice</u>		<u>CTAC</u>
<u>Seminar</u>	<u>HTR Energy Efficiency Workshop (2)</u>	<u>X</u>	<u>CTAC</u>
<u>Seminar</u>	<u>Industrial Refrigeration</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Lighting Retrofit Strategies and Project Management Techniques</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Successful Merchandising with Efficient Lighting</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Technology Update</u>		<u>CTAC</u>

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<u>Seminar</u>	<u>Title 24 Nonresidential 2005 Standards</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Title 24 Nonresidential 2005 Standards</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Unitary HVAC System Options</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Groundwater Wells and Pumps</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>Compressed Air</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>Implementing Energy Efficient Projects</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>SCE Engineer Workshop</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>Energy Efficiency Seminar</u>		<u>CTAC</u>
<u>October</u>			
<u>Seminar</u>	<u>Advanced Lighting Technologies</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Basic Heating, Ventilation and Air Conditioning (HVAC)</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Commercial & Industrial Lighting</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Efficiency Techniques for Industrial Refrigeration</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Energy Efficiency Seminar (2)</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Energy Efficient Supermarket Refrigeration</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Energy Efficiency Workshop</u>		<u>CTAC</u>
<u>Seminar</u>	<u>HTR Energy Efficiency Workshop (2)</u>	<u>X</u>	<u>CTAC</u>
<u>Seminar</u>	<u>Lighting for Interior Design</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Managing your Energy Systems</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Technology Update</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Industrial Maintenance</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>Prime Movers</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>Industrial Refrigeration</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>Lighting Controls for Energy Management</u>	<u>X</u>	<u>AgTAC</u>
<u>November</u>			
<u>Seminar</u>	<u>Basic Heating, Ventilation & Air Conditioning (HVAC)</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Compressed Air System Efficiency</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Cooling Tower Efficiency</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Design Strategies for High Performance Glass</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Energy Efficiency Seminar (2)</u>		<u>CTAC</u>
<u>Seminar</u>	<u>HTR Energy Efficiency Workshop (2)</u>	<u>X</u>	<u>CTAC</u>
<u>Seminar</u>	<u>Implementing Energy Efficiency Projects</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Industrial Maintenance</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Lighting Fixture Maintenance Workshop</u>		<u>CTAC</u>
<u>Seminar</u>	<u>Rebuild America Series</u>		<u>CTAC</u>
<u>Seminar</u>	<u>FSU-CIT</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>Advanced Lighting Systems</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>Commercial Refrigeration</u>	<u>X</u>	<u>AgTAC</u>
<u>Seminar</u>	<u>Technology Update</u>	<u>X</u>	<u>AgTAC</u>
<u>December</u>			
<u>Seminar</u>	<u>Energy Efficiency Seminar</u>		<u>CTAC</u>

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Seminar	<u>High Intensity Discharge Lighting (HID)</u>		<u>CTAC</u>
Seminar	<u>How To Manage Your Business's Energy Costs</u>		<u>CTAC</u>
Seminar	<u>HTR Energy Efficiency Workshop (2)</u>	<u>x</u>	<u>CTAC</u>
Seminar	<u>Skylighting for Commercial & Industrial Buildings</u>		<u>CTAC</u>
Seminar	<u>Merchandizing With Efficient Lighting</u>	<u>x</u>	<u>AgTAC</u>
Seminar	<u>Motors and ASDs</u>	<u>x</u>	<u>AgTAC</u>
Seminar	<u>Packaged HVAC</u>	<u>x</u>	<u>AgTAC</u>
Total Events =	<u>185</u>		

Event Type	Outreach Supported Events Estimated Timeline(note: not all events are listed)	Hard to Reach
<u>January</u>		
	<u>Asian Business Association</u>	<u>X</u>
	<u>SBA Loan Fair</u>	
	<u>California Electricity Market Update (2)</u>	

<u>February</u>		
	<u>California Electricity Market Update (8)</u>	
	<u>2003 World Ag EXPO, Tulare</u>	
	<u>AAHOA Regional Energy Efficiency Event</u>	
	<u>Edison Field Home Show</u>	
	<u>South Bay Cities COG General Assembly</u>	
	<u>United Fresh Fruit & Vegetable Assn EXPO, Long Beach</u>	
	<u>Black History Event</u>	<u>X</u>

<u>March</u>		
	<u>Westside Business EXPO</u>	
	<u>High Desert Vendor Show, Victorville Fair Grounds</u>	<u>X</u>
	<u>Rebuild America Event, CTAC</u>	
	<u>ULI Urban Marketplace</u>	
	<u>AEE Convention</u>	
	<u>Lincoln Elementary School, EE Lighting</u>	
	<u>Centennial Expo</u>	
	<u>Wilson Elementary School, EE Lighting</u>	
	<u>Lincoln Elementary School, EE Lighting</u>	
	<u>Centennial Expo</u>	
	<u>Wilson Elementary School, EE Lighting</u>	
	<u>Laguna Wood Energy Event</u>	

<u>April</u>		
	<u>Irvine B2B Event</u>	

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	<u>Annual CALED Conference</u>	
	<u>SCE Energy Manager Breakfast & Seminar (4)</u>	
	<u>Palm Springs Home Show</u>	
	<u>UCRA Cool Roofs Event</u>	
	<u>Earth Day & Energy Conservation Fair</u>	
	<u>Asian American Hotel Owners Association (AAHOA) Convention</u>	X
	<u>P.A.S.S. EXPO, Palm Springs</u>	
	<u>Commercial & Industrial Lighting Workshop</u>	
	<u>Annual Environmental EXPO, CSU-San Bernardino</u>	
	<u>2003 Small Business Conference & Expo</u>	X
	<u>Energy Star Expo</u>	
	<u>2003 Small Business Conference & Expo</u>	X
	<u>Energy Star Expo</u>	X
	<u>Energy Expo, Earl Warren Fairgrounds</u>	X

<u>May</u>		
	<u>B2B Industry Show</u>	
	<u>California Electricity market Update (11)</u>	
	<u>Anaheim Home Show</u>	
	<u>Rebuild America Event</u>	
	<u>Chinese Energy Star Press Conference & EXPO</u>	X
	<u>Federal Energy Management Program Workshop</u>	
	<u>US Dept of Energy, Irvine</u>	
	<u>Corporate Investment Strategic Alliance Conference</u>	
	<u>California Counties Association</u>	
	<u>Large Business EXPO, Arcadia</u>	
	<u>How to Partner with SCE on Your Building Projects</u>	

<u>June</u>		
	<u>California Electricity Market Update (2)</u>	
	<u>Basic HVAC Seminar</u>	
	<u>Non-Profit Community Energy Workshop</u>	X
	<u>Annual Express Efficiency Hispanic Press Conference</u>	X
	<u>Annual African-American Summit, Irvine</u>	X
	<u>Minority Small Business Tech Summit</u>	X
	<u>Let Our Managers Work For You</u>	

<u>July</u>		
	<u>Korean Express Efficiency Press Conference & EXPO</u>	X
	<u>National Urban League Conference</u>	
	<u>Non-profit Energy Forum</u>	X
	<u>Independent Cities Association, Palm Springs</u>	
	<u>Let Our Managers Work For You (3)</u>	

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	<u>Non-Profit Community Energy Workshop (2)</u>	
August		
	<u>Western Foodservice & Hospitality EXPO</u>	
	<u>How to Manage Your Business' Energy Costs (2)</u>	
	<u>Maintenance Superintendent Association Annual Conference, Palm Springs</u>	
	<u>Chinese Small Biz Energy Efficiency EXPO</u>	X
	<u>Energy Conservation Presentation, Covina CofC</u>	
	<u>Wescorp Energy Star Event</u>	
	<u>Energy Conservation Presentation, Covina CofC</u>	
	<u>Wescorp Energy Star Event</u>	
	<u>DOE Building Envelope</u>	
September		
	<u>Annual League of California Cities</u>	
	<u>West Coast Energy Management Congress w/AEE</u>	
	<u>Desert Contractor's Association</u>	X
	<u>Energy Star Apt. Assoc. of So CA</u>	
	<u>LA Chapter CSHE Mini Seminar, Energy Star Office</u>	
	<u>Santa Paula Energy Workshop</u>	
	<u>Desert Contractor's Association,</u>	X
	<u>Energy Star Apt. Assoc. of So CA, "Save Energy, Save Money" (2)</u>	
	<u>LA Chapter CSHE Mini Seminar,</u>	
	<u>Energy Star Office</u>	
	<u>Santa Paula Energy Workshop</u>	
	<u>Fillmore Energy Workshop</u>	X
October		
	<u>BOMA</u>	
	<u>Non-profit Energy Forum</u>	
	<u>Cook Chill Rethem Serve (CCRM)</u>	
	<u>AQMD Small Business Event</u>	
	<u>Energy Awareness Week, Marine Corps Base 29 Palms</u>	
	<u>National Minority Supplier Development Council</u>	
	<u>Norco Business Expo, Energy Star Office</u>	
	<u>Chino Valley CofC Business Expo, Energy Star Office</u>	
	<u>LBA Latino Business Expo</u>	X
	<u>So Bay Economic Forecast, Energy Star Office</u>	
	<u>Rialto CofC Business Expo</u>	
	<u>Cathedral City Business Expo</u>	X
	<u>Orange Co Economic Forecast, Energy Star Office</u>	
	<u>Fountain Valley Business Expo, Energy Star Office</u>	

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	<u>Norco Business Expo, Energy Star Office</u>	
	<u>Chino Valley CofC Business Expo, Energy Star Office</u>	
	<u>LBA Latino Business Expo</u>	X
	<u>So Bay Economic Forecast, Energy Star Office</u>	
	<u>Rialto CofC Business Expo</u>	
	<u>Cathedral City Business Expo</u>	X
	<u>Orange Co Economic Forecast, Energy Star Office</u>	
	<u>Fountain Valley Business Expo, Energy Star Office</u>	
	<u>Who's Who in Westminster, Energy Star Office</u>	

<u>November</u>		
	<u>Little Saigon EXPO</u>	
	<u>California Association of Nonprofits/State Association of Counties</u>	
	<u>Edison Field Home Show</u>	
	<u>Manufacturing Summit</u>	
	<u>Hispanic Lifestyle Business Expo/Conf</u>	X
	<u>Manufacturing Summit</u>	
	<u>Hispanic Lifestyle Business Expo/Conf</u>	X
	<u>Yorba Linda Women's Club, EE Lighting</u>	

<u>December</u>		
	<u>California Farm Bureau Convention</u>	X
	<u>City of Palm Desert Energy Fair, EE Lighting</u>	
	<u>FEMP, Design Strategies for Sustainable Buildings</u>	
	<u>City of Walnut, CofC, EE presentation</u>	
	<u>FEMP, Design Strategies for Sustainable Buildings</u>	
	<u>City of Walnut, CofC, EE presentation</u>	
	<u>Black Business Professional Association, Long Beach</u>	X

Timelines in the above tables are approximate. Other Energy Center, RTTC, and Outreach activities such as those listed in the table in Section I, B, take place throughout the year.

Information Services

Information Services will roll out in 2004 without interruption to customers (due to the Commission's bridge funding). IOUs are providing continuous information services with even distribution of their goals over the course of the two years. Information will be provided by SCE account representatives to customers as needed regarding the status and availability of new nonresidential energy audit and incentive and rebate programs as they are approved or changed, and to promote these energy efficiency programs throughout the year.

Product Labeling

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In 2004, SCE will continue its Product Labeling program. This program's efforts will complement the SFEER program. Because of very exciting results in 2003, SCE intends to do the following in 2004:

- Expand the product labeling effort to include a greater selection of measures. This will directly expand on the efforts started in 2003 with electric water heaters and whole house fans. Preliminary incremental results show promise.
- The program will focus efforts to improve the distribution and sale of energy efficient residential products through education and training of sales personnel and the labeling of products in-store. This in-store labeling brings the energy efficient product to the customers' attention.
- A greater emphasis is planned for the point-of-sale method of delivery. We expect to have a greater reliance on the role of product labeling in the retail stores to support this.
- Lastly, the program will disseminate rebate information and marketing materials to manufacturers, distributors, retailers and contractors to increase consumer awareness.

III. Customer Description

A. Customer Description

The educational and information efforts of the SCE Education and Training Program targets a broad spectrum of market actors including consumers, midstream actors and upstream market actors detailed below. The motivations to make use of the program encompass reducing operational costs as well as increasing productivity and profitability.

- New Construction Market
 - Architects and Designers
 - Contractors
 - Residential Developers and Builders
 - Manufacturers
 - Engineers
- Retrofit Market (Facility and Plant Managers)
 - Residential Customers
 - Commercial Businesses
 - Industrial Businesses
 - Institutions
 - Government (Federal/State/Local)
 - Agricultural
- Agricultural/Food Processing Specialists
- Refrigeration Specialists
- Maintenance and Repair Personnel
- Energy/Environmental Organizations
- Energy Management Specialists
- Professional and Trade Associations

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- Technical and Marketing Professionals
- Technical and Trade School Programs
- Business Leaders
- Finance Managers

A study completed in 2001 by Xenergy Consulting, Inc., showed that customers most likely to attend seminars will come from within a 50-mile radius of the location. Therefore, seminars are considered HTR if they are held in an area where a high percentage of the zip codes within the surrounding 50 mile radius are rural. They are also considered HTR if the majority of customers attending have come from a rural zip code or are considered small (<20kW), regardless of where the seminar is held.

Information Services

The Information Services program targets nonresidential customers of all sizes. While this program is available for all nonresidential customers, it targets medium and large customers with the ability to change practices and incorporate hardware measures resulting in large energy savings, customers located in transmission constrained areas identified by the California ISO, and hard-to-reach areas within the SCE service territory.

Product Labeling

The program works directly with contractors, retailers, and utilities and focuses their efforts into a seamless whole, outside the awareness of consumers. This work entails the educating of the sales force of hundreds of retailers to the benefits of energy efficient products. Ultimately the information is disseminated to the consumers, who reap the benefit of purchasing an energy efficient product.

B. Customer Eligibility

All SCE customers are eligible to attend seminars at the energy centers and all nonresidential (commercial, industrial, and agricultural) customers paying the Public Purposes Charge component of their electric bill are eligible to receive the services and information available from the energy centers and information services offerings of this program.

The Product Labeling program element is not delivered directly to end-use customers, but is directed to the equipment supply chain to increase customer awareness of energy efficient products and opportunities for potential rebates.

C. Customer Complaint Resolution **Energy Centers**

Customers who attend seminars are asked to complete an evaluation form asking for feedback regarding the class content, the instructor, and the facility. Evaluations are reviewed after each seminar and both numeric results and verbatim comments are stored in a tracking system.

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Information Services and Product Labeling

Customer complaints, questions, concerns, or disputes related to program procedures or policies are typically directed to IOU program managers. If under rare circumstances that the issue cannot be resolved by the program manager, the matter will be referred to the IOU's energy efficiency management for further consideration and resolution.

D. Geographic Area

This program is offered to all eligible customers in the SCE, SDG&E or PG&E service territories. It is intended that the reduction in peak demand resulting from this program will assist in the mitigation of forecasted reliability concerns within the geographic areas served by the transmission-constrained paths described in the SCE portion of the ISO Summer Assessment report.

IV. Measure and Activity Descriptions

A. Energy Savings Assumptions

Section IV.A is not applicable. Based upon the California Public Utilities Commission's (CPUC) approved Energy Efficiency Policy Manual, an information-only program is not reasonably expected to provide an estimate of energy savings. The lack of energy savings, capacity savings, therm savings, resource benefits, or a TRC ratio for any particular program, i.e., information programs, should not imply that a measure or program does not promote energy efficiency. Neither should it imply that there is no impact to the customer's use of electricity or natural gas, nor a corresponding impact to the electricity or natural gas system. In fact, Education and Training and Non-residential Audit programs' activities contribute directly to the success of the incentive/rebate programs, and the hardware or equipment change-out portion of the energy savings that come from Education and Training and Nonresidential Audits are contained within the savings claimed from the various and applicable incentive/rebate program.

B. Deviations in Standard Cost-effectiveness Values

Section IV.B is not applicable.

C. Rebate Amounts

Section IV.C is not applicable.

D. Activities Descriptions

Program related activities not directly tied to measurable energy savings include seminars and workshops, displays and exhibits, consultations and demonstrations, marketing and outreach, and customer contacts / visits. Administrative activities such as facilities support, supplies, information technology support, and office management supplies also support the ability to deliver the program to customers.

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<u>Activity</u>	<u>Description</u>	<u>Approx. Cost/Activity</u>
<u>Energy Centers/Outreach</u>		
<u>Seminars/Workshops</u>	<u>Classroom venue providing customers with information on energy efficiency topics.</u>	<u>\$ 5,950</u>
<u>Energy Center Displays/Exhibits</u>	<u>Graphical and text depictions of energy efficiency topics.</u>	<u>\$ 200 – several thousand depending on the complexity</u>
<u>Consultations/Demonstrations</u>	<u>One on one or to small group discussions of energy efficiency that might be accompanied by a demonstration using equipment or other tools.</u>	<u>\$ 100 for phone call level</u> <u>\$ 1,200 for a full demonstration</u>
<u>Marketing</u>	<u>Quarterly calendars, flyers, brochures, promotional items, local advertising.</u>	<u>Refer to</u> <u>Section II. B. -Marketing Plan</u>
<u>Outreach</u>	<u>Staffing for trade shows, conferences, community events. Creating graphics for specific events in support of energy efficiency initiatives; fees for participation in events.</u>	<u>Varies from</u> <u>\$500 to \$3,000 per event</u>
<u>Outreach Displays/Exhibits</u>	<u>Update existing displays, create new displays/exhibits to support energy efficiency initiatives; contract support to ship, deliver, set up and tear down exhibits.</u>	<u>\$ 500 - \$1,500 depending on the nature of the event</u>

<u>Activity</u>	<u>Description</u>	<u>Approx. Cost</u>
<u>Information Services</u>		
<u>Customer Contacts</u>	<u>Contacting customers to disseminate information regarding energy efficiency technologies, programs, and services.</u>	<u>\$ 10 - \$ 350</u> <u>Varies depending on the nature of contact and complexity of issue</u>

<u>Activity</u>	<u>Description</u>	<u>Approx. Cost</u>
<u>Product Labeling</u>		
<u>Special Events</u>	<u>Field services to train retailers and contractors and to</u>	<u>\$20,000 - \$40,000 depending on number of retail locations</u>

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	<u>disseminate point-of-purchase materials and SFEER program information. This includes materials and associated expenses.</u>	<u>involved</u>
<u>Marketing/Outreach</u>	<u>Preparation of marketing materials and printing</u>	<u>\$3,000 - \$12,000 per activity</u>

V. Goals

As described in Section I, Program Objectives, the filed targets for the Education and Training Program will be:

- 185 seminars of which 75 will be focused on issues pertinent to the hard-to-reach customer segment

VI. Program Evaluation, Measurement and Verification (EM&V)

A. General Approach to Evaluating Program Success

This statewide evaluation plan was developed in accordance with EM&V requirements as specified in the current Energy Efficiency Policy Manual. The Manual does not require the evaluation plan for this information-only program to have a measurement and verification component. Pursuant with CPUC instructions, this plan should not be regarded as final. A final, more complete plan will be specified in accordance with the forthcoming New California Evaluation Framework and the Protocols at a later date.

The evaluation will entail both a market assessment, including a verification of program targets and participant/customer behavior analyses, and a process evaluation of the statewide program. These activities will assist with assessing market impacts and awareness of energy-efficient measures, practices, and technologies resulting from the dissemination of information by the energy centers. Activities will include the assessment of awareness and behavior with respect to energy-efficient technologies among the target audience population, and the assessment of the program's success in reaching hard-to-reach customers. In addition, the study will evaluate and document program accomplishments, noting best practices and potential strategies for improving the overall program design.

B. Approach to Measurement and Verification of Energy and Peak Demand Savings

This program is identified as an information program. Consequently, this evaluation is not intended to measure and verify program energy and demand savings.

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C. Approach to Evaluation Program Success

The proposed evaluation of the Education and Training program's success will primarily document the accomplishment of the goals laid out above. The success of the program will also be gauged by a process evaluation and an updated market assessment and customer behavior analysis study. These studies will provide (a) ongoing feedback and corrective guidance regarding program implementation and delivery to customers through program process evaluation, and (b) measured indicators of the program effectiveness through analysis of market data and customer satisfaction.

D. Potential EM&V Contractors

The contractors proposed below can objectively evaluate program success and have performed impact evaluations, measurement and verification studies, process evaluations, markets assessments, and verifications of program accomplishments. These are firms that have a track record of completing high quality, objective evaluations of energy efficiency programs either for the California investor-owned utilities or for other entities whose studies we have been able to review. This list does not include all of the qualified evaluators who could objectively evaluate program success. The final list of evaluation consultants will be based on several factors including: future Commission decisions, the mix of approved programs and the experience of the evaluation consultants.

- ADM Associates
- Architectural Energy Corporation (AEC)
- Heschong-Mahone Group
- Itron (RER)

- KEMA XENERGY
- Quantum Consulting
- PA Consulting Group
- RLW Analytics
- TecMARKET Works

VII. Qualifications

A. Primary Implementer **Energy Centers/Outreach**

CTAC has been in operation since 1990, and AGTAC has been in operation since 1996. Since inception, the centers have maintained or increased participation in the program with little change in budget. The number of EE events at the centers increased from 65 in 1998 to 231 in 2003. In addition, energy center personnel taught 6 classes in 1998, compared to 65 in 2002. The Outreach organization has coordinated participation in trade shows and community events for more than 20 years.

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The combined personnel of the Energy Centers and Outreach average over 15 years of electric utility experience and over 12 years of energy efficiency experience.

Information Services

SCE has substantial years experience in designing, planning and implementing energy efficiency programs which are designed to help nonresidential customers with information on the benefits energy efficiency options, measures or adopting practices that can reduce their electrical energy use and ultimately their utility bill.

SCE is responsible for managing and implementing the statewide Education and Training program within SCE's service territory. As a whole, SCE is uniquely qualified to provide the core of statewide and local programs that form a solid and reliable foundation of energy savings opportunities that our customers and the State can rely upon. Over the years, SCE has developed energy efficiency experience, expertise and a support infrastructure that is second to none. Moreover, our long-term commitment to and credibility with our customers are critical to widespread acceptance of energy efficiency information and recommendations for action. Finally, SCE provides ironclad accountability to our regulators and the customers we've served for over a century that is invaluable to ensuring that public money is appropriately spent.

SCE's experience in energy efficiency is a century long. We began assisting customers in the wise use of energy in the early 1900s, when we first began helping our agricultural customers to test the efficiency of their electric pumps. Beginning in the 1980's, the energy efficiency programs designed by SCE have been nationally recognized and have helped California assume a leadership role in energy efficiency. Continuing this tradition of excellence in energy efficiency, SCE's 2004 - 2005 portfolio of statewide and local programs incorporates innovation into our proven track record of program success in all program areas:

Residential - SCE's participation in the delivery of residential programs began in the early 1980s, when we began offering comprehensive audits that linked information collected in customer homes by certified energy service representatives to actual billing histories. Through this unique service, customers received immediate audit results that directed them to rebate programs available for recommended energy-saving measure and device retrofits. Conservation information materials were also made available to customers for the first time. Today, SCE continues this two-decade tradition through a similar close combination of residential information, energy survey, and rebate services, but updated to reflect today's technological advances. With a staff comprised of energy efficiency experts with professional experience in other business fields, SCE has designed modern programs that offer a variety of energy efficiency tools on-line, including information, energy use calculator/estimators and an energy survey that provides instantaneous recommendations based on each participating

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customer's energy use. Strong business relationships between SCE and major retailers now enable SCE to pay incentives directly to a customer through several delivery mechanisms: as the result of an application process, at the cash register, or as part of price buy downs at the manufacturer level. Staff with marketing knowledge develops strategies that call out the best and most efficient method of reaching the right customer group with the program mix that best matches their needs.

Nonresidential - Southern California Edison has provided nonresidential customers with energy efficiency programs under the direction of the Commission since 1976. Early programs provided information to customers on how to use energy more efficiently through improved operations and maintenance practices. Since that time, SCE's programs have evolved, expanded, and diversified into a comprehensive mixture of information and incentive programs. SCE is a national leader in the development and operation of performance-based energy efficiency incentive programs including DSM Bidding and Standard Performance Contract Programs. Our programs have tracked the evolving goals of the Commission, the needs of the marketplace and input of the many stakeholders in the energy efficiency industry. Most important, SCE's customers have grown to trust the utility as the single, unbiased source of energy efficiency information, services and programs. No matter what else was happening to affect customer opinion of the utility industry, our business customers continued to look to SCE for assistance in managing their energy use and costs.

New Construction – For over 20 years, Southern California Edison has designed and operated programs aimed at improving the energy efficiency of new buildings, both residential and nonresidential. Whether through financial incentives, technology showcases, builder and consumer education, or assistance to design professionals, SCE programs have effected significant, permanent improvements in the energy efficiency of new buildings in its service territory. Since the early 1990s, builders participating in SCE's residential programs have built over 50,000 homes that exceeded state building standards. For nonresidential new construction, SCE has refined and enhanced a wide array of educational and design assistance tools, including free state-of-the-art online technical assistance, for the commercial building industry. We have a well-respected group of design professionals on our staff including architects and engineers, and we have established alliances throughout the design and construction industry with organizations such as AIA, ASHRAE, IES, AEE, IEEE, and CEE.

The program design and implementation team who plan, administer, deliver and support our programs provides unparalleled expertise in energy efficiency programs. Our program managers have an average of ten years of experience in energy efficiency and related customer service activities and are supported by a veteran staff of technical experts in all facets of energy efficiency. Our design and technical support staff have over 300 years of combined experience, over two-

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thirds are licensed by state or federal organizations, and over half have advanced degrees. Our program design and evaluation staffs also have extensive first-hand knowledge of the customer demographics unique to SCE's service territory. After all, for over 100 years we've lived and worked with the customers we serve.

Finally, as a utility who serves all of the energy needs of all of our customers, SCE also has an existing infrastructure of support functions (such as accounting, regulatory and legal departments), systems (such as our program tracking and reporting systems) and facilities (such as our energy centers) that we use to facilitate the successful implementation of our programs. Further, our long-term relationship with the Commission and the customers we serve further ensures that our customers will be well served and protected. Using the experience and resources described above, SCE stands ready to satisfy our customers' energy efficiency needs and meet the Commission's policy objectives.

B. Subcontractors

SCE uses a variety of subcontractors for tasks including graphic design, exhibit construction and maintenance, lighting consultations, program and seminar development, specialized staffing needs, facilities support, and other administrative support.

<u>On-site Supervision & Data Management Services/CTAC - Addecco</u>	<u>Oversee on site Addecco staff. Prepare event summaries and Prepare spreadsheets for reporting and data analysis. Maintain Management of in-house Mailing List Database. Administrative of web-site, seminar marketing, support of project management</u>
<u>Level 1 Coordination Services/CTAC - Addecco</u>	<u>Perform registration and confirmation tasks for educational e nametags, fee collections, issuing receipts, and issuing certification completion. Prepare event summaries and agendas. Prepare for charge-backs and cost analysis. Maintain data Management Mailing List Database. Perform receptionist, scheduling, and tasks, as necessary.</u>
<u>Level 2 Coordination Services/CTAC - Addecco</u>	<u>Greet customers /clients who arrive at CTAC for meetings or activities associated with hosting and catering of events held including meetings, seminars, training workshops, trade show events. Maintain customer literature supplies and assemble ' required. Provide CTAC management weekly reports of ever including porter schedule and attendance statistics.</u>
<u>Technical Specialist/RTTC</u>	<u>Responsible for performing engineering analysis, assisting the equipment and apparatus at the RTTC.</u>
<u>Technical Specialist/RTTC</u>	<u>Responsible for performing engineering analysis, assisting the equipment and apparatus at the RTTC.</u>

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<u>Royal Crest</u>	<u>Provide all necessary supervision, labor, material, tools and perform job functions. Responsibilities to include cleanliness rooms, set-ups and teardowns of all meeting room spaces</u>
<u>ASW Engineering</u>	<u>Deliver topic specific seminars to educate and inform custom efficient technologies.</u>
	<u>Develop topic specific seminars to educate and inform custom efficient technologies.</u>
<u>Lighting Collaborative</u>	<u>Deliver topic specific seminars to educate and inform custom efficient technologies.</u>
<u>Avery Energy Consulting</u>	<u>Deliver topic specific seminars to educate and inform custom efficient technologies.</u>
<u>Fitch Electrical</u>	<u>Deliver topic specific seminars to educate and inform custom efficient technologies.</u>
<u>FSU-CIT</u>	<u>Deliver Irrigation specific seminars to educate and inform cus energy efficient technologies</u>
<u>CPSLO</u>	<u>Deliver Irrigation specific seminars to educate and inform cus energy efficient technologies</u>
<u>UC Davis</u>	<u>Deliver Irrigation specific seminars to educate and inform cus energy efficient technologies</u>
<u>Concepts In Controls</u>	<u>Exhibit Design, Construction, Upgrades and Repairs</u>
<u>Specialized Environments</u>	<u>Exhibit Design, Construction, Upgrades and Repairs</u>
<u>Ruiz Catering Services</u>	<u>Provides meals, food service, catering and support for all CT events</u>
<u>Agri-Contracting Services</u>	<u>Utility Person - Facility maintenance and operation activities (hours)</u>
<u>Penn Works</u>	<u>Exhibit Design, Construction, Upgrades and Repairs</u>
<u>Precision Electric</u>	<u>Miscellaneous electric work at CTAC including equipment ins maintenance and repair</u>
<u>Picasso's Catering</u>	<u>Provides meals, food service, catering and support for all CT events</u>
<u>Display Tech</u>	<u>Display and Exhibit production, repair, and maintenance.</u>
<u>Skyline Exhibits</u>	<u>Display and Exhibit production, repair, and maintenance.</u>
<u>Expedite</u>	<u>Delivery, pick-up, installation and dismantle of displays and e</u>
<u>Bob McPherson</u>	<u>Delivery, pick-up, installation and dismantle of displays and e</u>

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C. Description of Expertise

David Bruder, Lead IOU Project Manager

Mr. Bruder is a registered mechanical engineer with over 22 years of experience in energy efficiency program management, facility design and construction. As a project engineer for a major engineering and construction firm, David led and coordinated multi-discipline teams of engineers and architects in the design of large, complex industrial facilities. At Southern California Edison, David oversees all aspects of a portfolio of non-residential energy efficiency programs, including DSM Bidding, Standard Performance Contracts, and Express Efficiency. His responsibilities include design and implementation of programs, as well as managing cost and schedule, and tracking and reporting program status to management and the CPUC.

Bill Grimm, Manager, Nonresidential Energy Efficiency Programs

Bill Grimm is the Manager for SCE's Energy Efficiency Programs which includes statewide and local energy efficiency programs including the Express Efficiency Program, Nonresidential Energy Audit Program and the Small Nonresidential Hard To Reach Program. He has 13 years experience in energy efficiency, including 11 years designing and managing rebate and audit programs for residential and nonresidential customers, with 8 years designing and managing upstream programs in the areas of lighting, motors, HVAC, major appliances, home electronics, and window systems. Bill designed and managed the nation's first ENERGY STAR® product labeling program, and the first "upstream" incentive program, dubbed the manufacturers wholesale cost reduction (buy down) method. The method has been adopted nationwide by energy utilities and internationally by a World Bank affiliate for operation in third world countries. Bill's prior work included new product development and market management for a computer services division of a major aerospace firm, and sales/ sales management for midrange computer manufacturers.

Ed Flores, Program Manager, Nonresidential Energy Audits Program

Ed Flores has over 32 years of utility experience, 22 years with energy efficiency programs, renewable energy and 4 years in managing the following energy efficiency programs: Residential Lighting & Appliance Program, Mobile Education Unit, and Nonresidential Energy Audit Program. He has implemented financial incentive, education/information, energy audit and market transformation programs in the residential and nonresidential sectors. Ed brings a unique program management background with a combination of both depth and breadth of experience in managing energy efficiency programs. He also is Certified as a California State Energy Auditor.

Jim Hodge, Program Manager, Single Family Rebates

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At the height of the energy crisis in 2001, Jim was assigned as the program manager for the Single Family Energy Efficiency Rebate program. Responsible for the annual design, development, communication and implementation of a multimillion dollar energy efficiency program with participation by as many as 120,000 customers. Position requires daily interface with manufacturers, contractors, customers, and counterparts at the other California IOUs. Jim also provides direction and training for the customer call center and rebate processing center. Prior to his assignment in Energy Efficiency, Jim worked as a market manager in SCE's Major Customer Division.

Diane Romeyko, Manager, CTAC

Diane has 27 years of electric utility industry experience including 15 years delivering and managing the delivery of energy efficiency and demand side management programs.

Ken Rebensdorf, Manager, AgTAC

Ken has 30 years with electric utility industry at SCE including the position of Northern Building and Grounds Manager for 5 years and then Company-wide Grounds Administration Manager for 16 years. Ken was integral in the design and construction of SCE AgTAC, and has been its manager for the past 9 years Ken has a B.S. Degree in Agriculture

Gail Adams, Education and Events Manager, CTAC

Gail has 20 years of electric utility experience, all in areas related to energy efficiency. She has been involved with EE programs for all customer classes including 11 years managing rebate and audit programs, and for the past 9 years, managing the educational services and all events activities at CTAC. Gail has a MBA in Finance.

Richard McLeod, Technical Services Manager, CTAC

Richard is a registered mechanical engineer with 30 years of electric utility industry experience including 8+ years managing technical functions and services at CTAC. He is a member of the American Society of Heating Refrigeration and Air Conditioning Engineers (ASHRAE) and the American Society of Mechanical Engineers (ASME).

Greg Sharp, Project Manager, CTAC

Greg is a registered Architect and a Certified Lighting Professional with 30 + years of experience in the electric utility industry. He is a member of the American Institute of Architects (AIA) and the Illuminating Engineering Society of North America (IESNA)

Scott Hutton, Project Manager, AgTAC

Scott has 20 years electric utility industry experience including contract administration and management experience at Coordinator, Supervisor, Superintendent and Regional Manager Positions for SCE Building and Grounds

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Services. He has 8 years experience at AgTAC including 6 years experience managing energy efficiency programs for all customer classes, the education and events activities, administration, project management, and 2 years as Technical Specialist at AgTAC. Scott has an A.A. Degree in Business Administration and a B.S. Degree in Plant Science (Ornamental Horticulture)

Rose Pearson, Manager, Communications & Outreach

Rose has 29 years of electric utility experience starting in the Claims department and extensive experience in Corporate Communications, managing the Speaker's Bureau for 5 years. She has 14 years of experience managing energy efficiency outreach programs, supporting energy efficiency initiatives, for all customer classes. Rose has an A.A. Degree in Business Administration and has attended Cal Poly Pomona and Cal State Fullerton for her degree in Communications.

Gregg Ander, Manager, Design and Engineering Services

Gregg D. Ander, FAIA has over twenty-five years of experience in the areas of energy efficiency, building sciences and efficiency advocacy. He is the author of over sixty technical and design related articles on energy efficient design and building performance. He has presented results of his analysis and research at dozens of forums and has consulted with the California Energy Commission (CEC) and U. S. Department of Energy on both technical and policy related issues. He has been involved as a professional advisory group member to CEC overseeing the development of California efficiency standards and oversees the portfolio of Emerging Technologies which are analyzed and assessed at Southern California Edison. Mr. Ander has a Bachelor of Science degree from University of Wisconsin and a Masters degree from Arizona State University. He is licensed as an architect in the State of California and a Fellow of the American Institute of Architects.

Henry Lau, Program Manager

Henry Lau has a Ph.D. degree in Mechanical Engineering from Duke University and is a registered engineer in the State of California. He has over thirty years experience in building energy systems design and demand side management. Mr. Lau was the Director and Partner of a mechanical engineering consulting firm for seventeen years. In the 1970s and 1980s Mr. Lau was a consultant to the California Energy Commission (CEC) in the development of Title 24. He has extensive experience in computer building simulation analyses using DOE-2, TRACE, etc. Henry is always at the cutting edge of building energy systems design and controls and has been performing emerging technology assessments and demonstrations. He has published extensively in the area of HVAC systems and new technologies. He has been managing the Emerging Technology program for five years and is an active member of the Public Interest Energy Research (PIER) professional advisory group.

Ramin Faramarzi, Senior Engineer – Manager of RTTC

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Ramin is the manager of Southern California Edison Company's Refrigeration and Thermal Test Center (RTTC). He has extensive experience in energy efficiency research and simulation of energy systems in buildings. Ramin holds a Bachelor of Science degree from North Carolina State University and Masters degree from California State University – Los Angeles in Mechanical Engineering. He is a registered Professional Mechanical Engineer, and a member of American Society of Heating Refrigerating and Air Conditioning Engineers (ASHRAE).

J. Carlos Haiad, Senior Engineer

J. Carlos Haiad has earned his B.S. and M.S. degrees in Mechanical Engineering from Mackenzie University (Sao Paulo, Brazil) in 1978 and University of California, Irvine, in 1987, respectively. Mr. Haiad is a licensed professional engineer in the state of California and he has over 15 years of experience in the design and analysis of HVAC systems and controls for commercial buildings. Mr. Haiad also has extensive experience in the design and installation of thermal solar and photovoltaic systems. Mr. Haiad joined Southern California Edison' Design & Engineering Services group in 1995, where he manages demonstration projects of emerging energy efficient technologies, as well as provides technical support for statewide and local energy efficiency and demand management programs

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VIII. Budget

Program Budget	
Total Program Budget	\$11,797,001
Administrative	\$4,788,000
Marketing	\$4,404,200
Direct Implementation	\$2,407,800
EM&V	\$197,001
Other	